

The Impact of School-Wide Professional Development on Teachers' Practices: A Case  
Study of a Reading First School in Pennsylvania

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University of Pittsburgh, 2007

The professional development opportunities and the impact these opportunities had on teachers' instruction were examined through a case study design. This school was selected because it was participating in a reform initiative and had improving student achievement scores.

The research questions for this study included: (1) What was the nature of professional development in a Reading First School in which reading achievement improved and how were professional development activities made available to teachers? (2) What features of the professional development activity aligned with what was known about effective professional development and what were the similarities and differences in perceptions of teachers, coaches, and principal about the participation and characteristics of effective professional development? (3) What were teachers' perceptions about how their involvement in professional development activities changed or influenced their instructional practices? (4) In what ways has professional development impacted teachers' instruction?

This study had ten participants; the principal, the full-time reading coach, the part-time reading coach, and seven teachers (i.e. grades 1-3 and special education were represented in this sample). A core reading program was implemented at this school. This study included a pre-observation interview, a classroom observation, and a post-observation interview.

The findings for this study indicated that various professional development opportunities were available for teachers since the implementation of the Reading First grant. Also, although

all participants in this study identified professional development opportunities that included characteristics of effective professional development, the literacy leaders' (i.e. the principal and full-time coach) perspectives of influential professional development were different from the practicing teachers' perspectives. Teachers' perceived professional development to influence their knowledge of content, pedagogy, and curriculum. And finally, the professional development opportunities that most often influenced teachers' classroom reading instruction were those that connected to the core reading program.

## TABLE OF CONTENTS

<b>PREFACE.....</b>	<b>XVI</b>
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
<b>1.1 THE THEORETICAL FRAMEWORK FOR THE STUDY .....</b>	<b>4</b>
<b>1.2 INFLUENCE OF POLICY .....</b>	<b>6</b>
<b>1.3 PURPOSE OF STUDY.....</b>	<b>8</b>
<b>1.4 SIGNIFICANCE OF STUDY .....</b>	<b>9</b>
<b>1.5 DELIMITATIONS .....</b>	<b>9</b>
<b>1.6 DEFINITION OF TERMS.....</b>	<b>9</b>
<b>1.7 CONCLUSION .....</b>	<b>12</b>
<b>2.0 REVIEW OF THE LITERATURE.....</b>	<b>14</b>
<b>2.1 PROFESSIONAL DEVELOPMENT CHARACTERISTICS .....</b>	<b>17</b>
<b>2.1.1 Professional Learning Communities .....</b>	<b>22</b>
<b>2.1.2 Teacher Learning.....</b>	<b>23</b>
<b>2.1.3 Outcomes of Professional Development.....</b>	<b>26</b>
2.1.3.1 Student Achievement .....	26
2.1.3.2 Teacher Change .....	27
<b>2.2 RESEARCH IN LITERACY PROFESSIONAL DEVELOPMENT .....</b>	<b>29</b>
<b>2.2.1 Instructional Practice .....</b>	<b>31</b>

2.2.2	Student Achievement .....	35
2.3	EFFECTIVE LITERACY INSTRUCTION .....	41
2.3.1	National Reading Panel Report (NRP) .....	41
2.3.2	National Council of Teachers of English (NCTE).....	43
2.4	CONCLUSION .....	43
3.0	RESEARCH METHODOLOGY .....	46
3.1	CONTEXT FOR THE STUDY .....	47
3.2	DEMOGRAPHICS OF THE PARTICIPANTS .....	47
3.2.1	District.....	48
3.2.2	School .....	49
3.2.3	School-wide Reading Programs.....	51
3.2.4	Additional School-wide Reading Programs.....	53
3.2.5	Assessments .....	54
3.2.6	Professional Development at Jacolyn Elementary School .....	56
3.2.7	The Participants .....	58
3.3	METHODS .....	61
3.3.1	Interviews.....	61
3.3.1.1	Teacher Interviews.....	62
3.3.1.2	Coaches' Interviews.....	63
3.3.1.3	Principal Interview .....	64
3.3.2	Participant Observation .....	64
3.3.3	Secondary Data .....	69
3.4	PROCEDURES AND PROPOSED TIMELINE .....	69

3.5	VALIDITY/RELIABILITY.....	70
3.6	RESEARCHER’S ROLE.....	71
4.0	ANALYSIS OF DATA.....	73
4.1	QUESTION 1: WHAT WAS THE NATURE OF PROFESSIONAL DEVELOPMENT IN A READING FIRST SCHOOL IN WHICH READING ACHIEVEMENT IMPROVED, AND HOW WERE PROFESSIONAL DEVELOPMENT ACTIVITIES MADE AVAILABLE TO TEACHERS? .....	74
4.2	SUMMARY OF QUESTION 1.....	82
4.3	QUESTION 2: WHAT FEATURES OF THE PROFESSIONAL DEVELOPMENT ACTIVITY ALIGNED WITH WHAT IS KNOWN ABOUT EFFECTIVE PROFESSIONAL DEVELOPMENT, AND WHAT WERE THE SIMILARITIES AND DIFFERENCES IN PERCEPTIONS OF THE TEACHERS, COACHES, AND PRINCIPAL ABOUT THE PARTICIPATION AND CHARACTERISTICS OF PROFESSIONAL DEVELOPMENT? .....	83
4.4	STRUCTURAL CHARACTERISTICS .....	85
4.4.1	Session Type .....	85
4.4.2	Duration .....	85
4.4.3	Collective Participation .....	87
4.5	CORE CHARACTERISTICS .....	88
4.5.1	Active learning .....	88
4.5.2	Coherence .....	89
4.5.3	Content Focus.....	90
4.6	SUMMARY OF QUESTION 2.....	93



<b>4.6.1</b>	<b>Structural Characteristics.....</b>	<b>93</b>
<b>4.6.2</b>	<b>Core Characteristics .....</b>	<b>94</b>
<b>4.7</b>	<b>QUESTION 3: IN WHAT WAYS HAS PROFESSIONAL DEVELOPMENT IMPACTED TEACHERS' INSTRUCTION? IN OTHER WORDS, HOW HAS PROFESSIONAL DEVELOPMENT INFLUENCED TEACHERS' KNOWLEDGE OF CONTENT, PEDAGOGY, AND CURRICULUM IN READING? .....</b>	<b>96</b>
<b>4.7.1</b>	<b>Content.....</b>	<b>108</b>
4.7.1.1	Assessment.....	108
4.7.1.2	Components of Literacy Instruction .....	109
4.7.1.3	Knowledge of Literacy .....	112
4.7.1.4	Literacy Processes.....	112
4.7.1.5	Programs .....	114
<b>4.7.2</b>	<b>Curriculum .....</b>	<b>114</b>
4.7.2.1	SFA .....	114
4.7.2.2	Impact of Reading Across All Subjects .....	116
4.7.2.3	Sequence of Curriculum .....	117
<b>4.7.3</b>	<b>Pedagogy .....</b>	<b>118</b>
4.7.3.1	Instructional Strategies.....	118
4.7.3.2	Grouping .....	120
4.7.3.3	Set Instructional Goals.....	121
4.7.3.4	Additional Resources .....	122
<b>4.7.4</b>	<b>Experience .....</b>	<b>123</b>
4.7.4.1	Teaching Wisdom .....	123

4.7.5	Teacher Learning.....	125
4.7.5.1	Metacognition .....	125
4.8	SUMMARY .....	127
4.9	IN WHAT WAYS HAS PROFESSIONAL DEVELOPMENT HAD AN IMPACT ON TEACHERS' INSTRUCTION? .....	129
4.9.1.1	Synthesis of Teacher 1 .....	131
4.9.1.2	Synthesis of Teacher 2 .....	132
4.9.1.3	Synthesis of Teacher 3 .....	133
4.9.1.4	Synthesis of Teacher 4 .....	133
4.9.1.5	Synthesis of Teacher 5 .....	134
4.9.1.6	Synthesis of Teacher 6 .....	135
4.9.1.7	Synthesis of Teacher 7 .....	136
4.10	SUMMARY .....	137
5.0	CONCLUSION.....	141
5.1	INTRODUCTION.....	141
5.2	FINDINGS .....	141
5.2.1	Research question 1: What was the nature of professional development in a Reading First School in which reading achievement improved, and how were professional development activities made available to teachers? .....	141
5.2.2	Research question 2: What features of the professional development activity align with what is known about effective professional development, and what were the similarities and differences in perceptions of the teachers, coaches,	

and principal about the participation and characteristics of professional development? .....	142
5.2.3 Research question 3: What were teachers' perceptions about how their involvement in professional development activities changed/influenced their instructional practices?.....	144
5.2.4 Research question 4: In what ways has professional development had an impact on teachers' instruction? .....	144
5.3 CONCLUSIONS .....	145
5.4 DISCUSSION .....	150
5.5 IMPLICATIONS .....	153
5.6 LIMITATIONS .....	154
5.7 RECOMMENDATIONS FOR FURTHER RESEARCH .....	155
APPENDIX A .....	158
APPENDIX B .....	159
APPENDIX C .....	162
APPENDIX D .....	169
APPENDIX E .....	176
APPENDIX F .....	178
Teacher 1.....	182
Teacher 2.....	183
Teacher 3.....	184
Teacher 4.....	185
Teacher 5.....	186

Teacher 6.....	188
Teacher 7.....	188
<b>BIBLIOGRAPHY.....</b>	<b>190</b>

## LIST OF TABLES

Table 1 Characteristics of Effective Professional Development .....	21
Table 2 Data Collection Tools used in Literacy Research.....	32
Table 3 Percentage of Jacolyn Elementary Students on Grade Level (PSSA) .....	56
Table 4 Teachers' Demographic Information .....	60
Table 5 Template of Elements for Analyzing Lessons for Effective Reading Instruction .....	67
Table 6 Data Collection Timeframe .....	70
Table 7 Annual Progress Report (2006-2007) Professional Development Opportunities.....	75
Table 8 Annual Progress Report Data from 2004-2005 .....	78
Table 9 Annual Progress Report Data from 2005-2006 .....	79
Table 10 Duration of Time .....	86
Table 11 Content Focus of the Identified Professional Development Sessions .....	91
Table 12 Similarities and Differences in Perceptions of Effective Professional Development ...	95
Table 13 Definitions used in the Coding .....	98
Table 14 Codes and Definitions for Emerging Themes.....	100
Table 15 Content.....	104
Table 16 Curriculum.....	105
Table 17 Pedagogy.....	106

Table 18 Experience .....	107
Table 19 Teacher Learning .....	107

**LIST OF FIGURES**

Figure 1Total Number of Characteristics Found in Literacy Research ..... 31

Figure 2 Topics Discussed at Grade Level Meetings ..... 81

Figure 3 Groupings of the Professional Development Sessions ..... 88

## **PREFACE**

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## **1.0 INTRODUCTION**

Professional development is defined as those processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students (Guskey, 2000, p. 16).

The concept of “high-quality teachers” is being discussed from pre-kindergarten through teacher preparation programs in higher education. This multilevel interest sparks many questions about the relationship between highly qualified teachers and student learning. Many researchers have made the link between high-quality teaching and student learning (American Education Research Association, 2005; Au, 2002; Darling-Hammond, 2000; Guskey, 2000; Joyce & Showers, 2002; Rosemary, 2005; Sanders & Rivers, 1996; Sparks & Loucks-Horsley, 1990; Taylor, Pearson, Peterson, & Rodriguez 2005). Because research has found teacher quality to be such a significant factor in improving student achievement, investing in effective professional development makes sense. It is expected that effective professional development opportunities for teachers increases their knowledge and positively impacts student achievement.

Indeed, state student achievement scores increased when funding was directed toward ongoing professional development (Darling-Hammond, 2000). One component of the CIERA School Change Framework (2005) focused on effective professional development for teachers. The results from a study by Taylor et al. (2005) indicated that teachers who worked with the CIERA framework had a deeper understanding of how to implement the framework, and

therefore student reading scores improved when *teachers* implemented more components of the framework.

It is the cycle of professional development that allows teachers the opportunity to deepen their own knowledge: “The continual deepening of knowledge and skills is an integral part of any profession” (Garet, Porter, Desimone, Birman, & Yoon, 2001, p. 916). According to research, teacher learning was achieved best through professional development that met the following criteria: occurred over time (duration), was collaborative, was job-embedded (i.e., coaching), and had relevance to personal setting (International Reading Association, 2003; Taylor, Pearson, Clark, & Walpole, 2000; Garet et al., 2001; National Staff Development Council, 2001; American Educational Research Association, 2005; Taylor, Pearson, Peterson, & Rodriguez, 2005).

In order to improve student achievement, teachers must have a strong understanding of effective research-based pedagogical practices. The International Reading Association’s *Position Statement on Excellent Reading Teachers* (2000) stated, “They [effective teachers] have strong content and pedagogical knowledge, manage classrooms so that there is a high rate of engagement, use strong motivation strategies that encourage independent learning, have high expectations for children’s achievement, and help children who are having difficulty.” Shulman (1986) explained that teachers must have a deep understanding of content knowledge, curriculum knowledge, and pedagogical knowledge. Professional development provides teachers with opportunities to better understand research-based ideas in the areas of content, curricular, and pedagogical knowledge. The ultimate goal of professional development is for teachers’ understanding of these research-based ideas to improve instructional practices in all classrooms.

Recent research had established characteristics of effective professional development. Desimone, Porter, Garet, Yoon, and Birman (2002) produced two broad categories of effective professional development, structural and core. The structural features (reform, duration, and collective participation) and the core features (active learning, coherence, and content focus) work in conjunction to provide a framework for effective professional development sessions. These key features must be explored further in schools where teacher change occurred and student achievement improved.

The work of Desimone et al. (2002) is reflected in the standards of the National Staff Development Council (NSDC). The NSDC (2001) includes context, content, and process standards for providing effective professional development. Context standards address the need for learning communities, effective leadership, and resources, while content standards include equity, quality teaching, and family involvement (NSDC, 2001). The NSDC (2001) process standards highlight the following: well designed, data driven, and research-based. Similarly, the American Educational Research Association (2005) indicated that effective professional development was based on high content knowledge, drawing associations between the professional development sessions and classroom practice, and opportunities to practice new strategies presented in professional development.

Historically, professional development for teachers of reading has not been studied thoroughly (Anders, Hoffman, & Duffy, 2000). According to Anders et al.'s (2000) analysis of professional development, ongoing research linking teacher change and student achievement was not the focus of reading researchers. Anders et al. (2000) indicated that less than 1 percent of the total reading research dealt with teacher in-service (Anders et al., 2000). Moreover, "Despite the size of the body of literature...relatively little systematic research has been conducted on the

effects of professional development on improvement in teaching or on student outcomes” (Garet et al., 2001, p. 917).

The National Reading Panel’s (NRP) (2000) report stated a need for continuing research in the area of professional development for teachers of reading. The NRP suggested a further need for qualitative research in this area to describe and correlate effective characteristics of professional development (NRP, 2000). Further research must to be designed to link effective professional development to teachers’ instructional practices and student learning (NRP, 2000).

## **1.1 THE THEORETICAL FRAMEWORK FOR THE STUDY**

Professional development is one means of facilitating teacher change on a grand scale. Because most professional development occurs as a means of broader school reform or improvement, these sessions should capitalize on this collaborative social environment (i.e., communities of learners) to promote teacher learning through dialogues among expert and novice teachers (Duffy, 2005). Since research indicates that teachers are a significant factor in student achievement (Darling-Hammond, 2000; Sanders & Rivers, 1996) it makes sense to invest in professional development that will support teachers in providing high quality reading instruction.

Cochran-Smith and Lytle (1999) stated that teacher learning occurs through a constructivist prospective: *all* teachers bring prior knowledge to social situations. The knowledge discussed in these environments over time allows teachers to connect their prior knowledge to new content (Cochran-Smith & Lytle, 1999). Learning occurred as connections were made. Fullan (1985) suggested that the interaction among people enabled change: “The constant communication and information sharing serve as continuous sources of support and pressure

among peers” (Fullan, 1985, p. 402). Teachers involved in a community of learners were supported through their efforts to gain a deeper understanding of content. A community of learners also provided teachers with a feeling of pressure to continue to perform and grow. The National Board of Professional Teaching Standards (2006) (NBPTS) supports teachers active involvement in learning communities; this active involvement facilitates thinking about more systematic reading instruction (NBPTS, 2006).

The social constructivist theory attempted to explain how meaning was made by the learner and teacher working together (social) to “construct” meaning (Atherton, 2005). According to Harris and Hodges (1995), social constructivism is “a method in composition and modern rhetoric that views learning and language as a product of social interaction” (p. 236); this interaction allowed teachers to learn collaboratively from one another in social settings.

The characteristics of effective professional development are being carefully examined in order to better understand *how the professional development session is conducted* and *what topics are discussed during these professional development sessions*. Moreover, research has begun to define these characteristics for a more clear understanding of *why these characteristics make a professional development session more influential* (Anders, 2000; American Education Research Association, 2005; Guskey, 2000; Ingvarson, Meier, & Beavis, 2005; National Staff Development Council, 2005).

This specific study used the work by Desimone et al. (2002), which provided a framework for the characteristics of effective professional development. This framework consisted of two main categories (i.e., structural and core) and each category was divided further into three specific characteristics of effective professional development. The characteristics in the structural category were session type (i.e., traditional or reform), duration, and collective

participation. The core category characteristics were coherence, active learning, and content. Research has demonstrated these characteristics to be attributes of high-quality professional development.

## **1.2 INFLUENCE OF POLICY**

As federal funding increased, there was a demand for improved education. Burger (2002) stated, “Since 1965, the federal government alone has spent in excess of \$321 billion dollars on improving education, specifically early education and reading” (p. 1). Public reports, such as *A Nation at Risk* (1983), *The National Center for Educational Statistics* (2006), and *No Child Left Behind’s* (NCLB) (2001) annual yearly progress (AYP) indicated that American student achievement was not improving over time despite funding.

*A Nation at Risk* (1983) was written to establish the need for everyone to have access to effective education. The findings were reported in four categories: content, expectations, time, and teaching. Although all of these distinctions were important, the findings related specifically to teaching demonstrated a need for highly qualified teachers in all subject areas. The list of recommendations provided by *A Nation at Risk* (1983) includes having a longer school year in order to provide adequate time for professional development, and stipulates that leadership was crucial to establishing a sense of community in which professional development can prosper.

The National Center for Educational Statistics (2006) (NCES) reported yearly statewide reading achievement scores. The NCES (2006) reported that the average reading scores rose two points from 1992 to 2005 in both fourth and eighth grades. The report also stated that the achievement gap between white and black students and white and Hispanic students narrowed by

two points from 2003 to 2005. This highly publicized report indicated that student improvement was moving at a slow pace. The slow rate of improvement was a cause for concern and generated criticism of the educational system as a whole.

*No Child Left Behind* (NCLB) (2001) continues to make a significant impact in many schools. There are four main components of NCLB: accountability, parent choice, increased local control, and implementation of scientifically-based research practices (Block & Israel, 2005). This legislation is tied heavily to accountability and funding. States, districts, and schools are being held to a high level of accountability for educating all of America's students. States and school districts are dependent on teachers being highly qualified to close the gaps in student achievement. Teachers are being held to a higher standard of teaching, which leads to more accountability for student achievement than ever before.

NCLB (2001) clearly stated the need for highly qualified teachers, and therefore the need for informative effective professional development. NCLB (2001) specifically described teacher quality as a necessary requirement for increased student achievement. President Bush acknowledged in NCLB (2001) that teacher quality was "vital to achieving improvement in student achievement" (p. 12).

Reading First is a federally funded initiative implemented under NCLB (2001) to improve reading in schools. This initiative focused on providing low achieving schools with more resources to improve student achievement. This initiative "gives states both the funds and tools they need to eliminate the reading deficit" (Bush, 2001, p. 10). The Reading First Initiative provided guidelines to which schools and districts must adhere in order to receive the federal funding. According to Block and Israel (2005), this initiative provided school districts with the resources to implement reading instruction in the early years that was research based, provided



professional development based on research, and set high standards that involved accountability measures. The common theme embedded in all of these reports was the need for highly qualified teachers who would be responsible for excellent instruction and improved student achievement.

### **1.3 PURPOSE OF STUDY**

This study investigated the professional development activities of one Reading First school in which student achievement improved. Such an investigation provided in-depth information on professional development practices in that one school setting. The research questions were:

1. What was the nature of professional development in a Reading First school in which reading achievement improved, and how were professional development activities made available to teachers?
2. What features of the professional development activity aligned with what was known about effective professional development, and what were the similarities and differences in perceptions of the teachers, coaches, and principal about the participation and characteristics of effective professional development?
3. What were teachers' perceptions about how their involvement in professional development activities changed/influenced their instructional practices?
4. In what ways has professional development had an impact on teachers' instruction?

#### **1.4 SIGNIFICANCE OF STUDY**

This study provides valuable information to various audiences in education, including reading researchers, school and district administrators, and educational consultants. The rich description presented by this case study helps identify questions for further research to be conducted on effective practices of professional development.

#### **1.5 DELIMITATIONS**

The intent of this study was to describe the professional development practices in a reform effort school (i.e., a Reading First school) that experienced an increase in student achievement.

The boundaries considered for this case study research included: selecting a school that has been participating as a Reading First school (i.e., low achieving and high poverty) and where student achievement scores improved; selection based on proximity to the researcher, and voluntary participation of this school. These parameters delimited the nature of this case study design.

#### **1.6 DEFINITION OF TERMS**

These definitions were specific to this case study.

Active Learning (core category): Opportunities for teachers to become actively engaged in the meaningful analysis of teaching and learning, for example, by reviewing student work or obtaining feedback on their teaching (Desimone et al., 2002, p. 83).

Coherence (core category): The degree to which the activity promoted coherence in teachers' professional development, by incorporating experiences that are consistent with teachers' goals, aligned with state standards and assessments, and encouraged continual professional communication among teachers (Desimone et al., 2002, p. 83).

Collaboration: Teachers worked together in groups (two or more people) to deepen teacher knowledge on specific reading topics.

Collective Participation (structural category): The degree to which the activity emphasized the collective participation of groups of teachers from the same school, department, or grade level, as opposed to the participation of individual teachers from many schools (Desimone et al., 2002, p. 83).

Community of Learners: Ongoing teams that met on a regular basis, preferably several times a week, for the purposes of learning, joint lesson planning, and problem solving. These teams operated with a commitment to the norms of continuous improvement and experimentation, and engaged their members in improving their daily work to advance the achievement of the school district and school goals for student learning (NSDC, 2006)

Content (core category): The topic or focus of the professional development session.

Content Knowledge: A teacher's deep understanding of the content that he/she was teaching (i.e., the content of reading instruction).

Context: Teachers collaborated with one another in order to learn from one another and reflected on their own instructional practices (NSDC, 2001).

Curriculum Knowledge: A teacher's deep understanding of both the vertical curriculum (grade to grade) and horizontal curriculum (curriculum connections across subject areas in one grade) (Shulman, 1986).

Duration (structural category): The total number of contact hours that participants spent in an activity, as well as the span of time over which the activity took place (Desimone et al., 2002, p. 83).

Effective Professional Development: "Those processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might in turn, improve the learning of students" (Guskey, 2000, p. 16).

Grade Level Meetings: Grade level teachers from across the school participated in bimonthly meetings to discuss substantive and/or logistical information.

High-Quality Professional Development: Professional development that *teachers* valued and that impacted teachers, to the point that there was a transfer of knowledge from the professional development session to their reading instruction.

Improving School: A Reading First school that had an increased number of students reading on grade level and a decreased number of students reading below the 20th percentile; these scores were derived from an average across grade levels 1, 2, and 3 on the Terra Nova Reading subtest and the Pennsylvania System of School Assessment (PSSA) (Zigmond & Bean, 2006).

Job-embedded Professional Development: Professional development that occurred in the classroom setting (i.e., modeling, co-teaching, and classroom observations/visits with feedback); this did not include grade level meetings.

Pedagogical Knowledge: A teacher's deep understanding of how to teach (i.e., deep understanding of instructional practices) (Shulman, 1986).

Process: Teachers used research to guide their learning while using multiple sources to monitor and sustain student achievement. Teachers met their goals by using research-based strategies and knowledge about learning while collaborating in a group (NSDC, 2001).

Reading First School: A school that received funding through the Reading First grant provided by the federal government. This reform effort specifically provided additional funding for reading instruction. These additional funds could have been allotted, but was not limited, to reading materials, additional personnel (i.e., reading coaches), and/or additional reading programs.

Reform Effort School: A school that was participating in a federal educational reform effort.

Reform Type (structural category): A study group, teacher network, mentoring relationship, committee or task force, internship, individual research project, or teacher research center, in contrast to a traditional workshop, course, or conference (Desimone et al., 2002, p. 83).

Traditional: Any form of professional development program in which teachers were passive recipients of information from a presenter; this type of session could occur in a single session with little follow-up (i.e., an in-service involving the entire district at one time).

## **1.7 CONCLUSION**

Professional development can have an impact on teacher practices and student achievement. By studying *what* professional development was offered and *how* professional development was

implemented in a reform effort school, a better understanding can emerge as to the impact of professional development on the school. A close examination of the professional development opportunities in an improving reform effort school provides a better understanding of how information from professional development is transferred to classroom practice. The framework of the characteristics of effective professional development guided this work, while additional information about professional development opportunities provided an understanding of teachers' transfer of knowledge from the professional development sessions to classroom reading instruction.

## 2.0 REVIEW OF THE LITERATURE

Teacher quality has been in the legislative spotlight in recent years. No Child Left Behind (2001) explicitly stated the need for more high-quality teachers; President Bush's budget for fiscal year 2007 allotted \$2.89 billion dollars specifically to improve teacher quality (Alliance of Excellent Education, 2006). It was the hope of this legislation that improved teacher quality would *improve* student achievement. According to Darling-Hammond (2000), student achievement correlated highly with teacher quality; state level aggregated data indicated this as the most influential variable in changing student achievement. All students benefited from high-quality instruction; however, struggling students gained the most (Sanders & Rivers, 1996).

Given the focus on high-quality teachers, interest in professional development for teachers has increased. This chapter addresses the research on professional development related to reading research. Also, the characteristics of effective professional development, which include knowledge of content, curriculum, and pedagogy, are discussed, as is the research related to professional learning communities.

In order for teachers to develop a deeper knowledge of content, curriculum, and pedagogy, they should have exposure to scientifically-based reading research. A meta-analysis of "effective reading instruction" was conducted by the National Reading Panel (2001). This meta-analysis found that five main components were addressed in effective reading instruction: phonemic awareness, phonics, comprehension, vocabulary, and fluency. The panel also stated

that further research needed to be conducted in the areas of teacher preparation/professional development and incorporating technology in reading instruction.

The National Board of Professional Teaching Standards (2006) outlined what teachers need to do in order to improve student learning. The points presented by NBPTS (2006) easily could be applied to reading educators:

1. Teachers are committed to students and their learning.
2. Teachers know the subjects they are teaching and how to teach those subjects to students.
3. Teachers are responsible for managing and monitoring student learning.
4. Teachers think systematically about their practice and learn from experience.
5. Teachers are members of learning communities.

(NBPTS, 2006)

Professional development offers teachers opportunities to deepen their knowledge of teaching and learning; these opportunities tend to include analysis of student work, authentic practice and classroom implementation, and reflective feedback. The NBPTS (2006) standards provided a framework for professional development. Staff development providers often look at student needs and then plan for teacher learning (Sparks and Hirsch, 1997). When student needs guide the learning of teachers, increasing student achievement is possible.

According to the President's Commission on Excellence in Special Education, (2002) sustained teacher learning helped teachers educate all children, especially those with reading difficulty; therefore, teachers must have access to professional development opportunities. The National Staff Development Council (2001) conducted a study of its members to gain a better understanding of the circumstances surrounding professional development in school districts. The target audience of administrators answered a range of questions pertaining to professional development. Although NSDC's Board of Trustees recommended that at least 25 percent of the teachers' work week be allotted to their professional learning, a disappointing finding of the survey indicated, "81 percent of the respondents stated that less than 5 percent of a teacher's



work week was set aside for professional learning” (NSDC, 2001, p. 4). The National Center for Educational Statistics (2000) indicated that except for professional development offered in a specific content area, teachers spent one day or less in professional development sessions during a twelve-month time span. In other words, the evidence indicates that schools do not allot enough time for teachers to participate in professional development programs.

In an extensive review of the research, Anders et al. (2000) described the evolution of professional development. This review started with a possible 19,457 studies discussing reading education; however, a sample size of 140 was identified and described in the review. The goal of this review was to examine the research that focused on teacher change, which included both research specifically targeting teacher change and research that involved teacher change as part of the design (Anders et al., 2000). Studies that were reviewed looked at long-term effects on teachers’ practice. Anders et al. (2000) indicated that this review tended to “include rather than exclude” when the outcome of teacher change became unclear. Also, Anders et al. (2000) stated, “the studies vary enormously in terms of methodology, factors investigated, rigor, and significance of findings” (p. 728).

Professional development has undergone many changes over the years. From 1900 to the 1960s, the apprenticeship model, in which an expert teaches a novice, was used to provide professional development to educators. Content and instructional practice became the focus from 1960 through the early 1980s. The third and final phase of professional development, according to Anders et al. (2000), began to challenge the two previous phases. The third phase began to focus more on teachers as reflective practitioners than simply the recipients of knowledge (Fenstermacher, 1994).

## 2.1 PROFESSIONAL DEVELOPMENT CHARACTERISTICS

Research has begun to identify characteristics of effective professional development. Anders et al.'s (2000) exhaustive review of the literature on teacher change established six common themes found in effective professional development: intensive/extensive commitments, monitoring/coaching/clinical support, reflection, deliberation/dialogue/negotiation, voluntary participation/choice, and collaboration. Guskey (2000) highlighted the need for an ongoing, intentional, systematic process for effective professional development. As with all academic fields, new information continues to develop; therefore, teachers must be lifelong learners (ongoing). Professional development needs to have a purpose (intentional). Once goals were established for professional development, the sessions became focused and the participants better informed. New information must be presented in a systematic way for teachers to deepen their understanding of the content and then fully implement this new knowledge into their teaching.

Moreover, the AERA (2005) stated that professional development should focus on the subjects that teachers were teaching. Learning opportunities needed to be aligned with real work by using assessment and curriculum materials of the school. Teachers need time for professional development, and there should be a reliable system in place to evaluate the impact that professional development activities had on teachers' practice and student learning (Teaching Points, 2005).

The NSDC (2001) established content, context, and process as the components to consider when developing and implementing professional development. The *content* presented to teachers in professional development sessions must be applicable to their classrooms; for example, *content* in reading might be related to fluency or assessment. The *context* of professional development addressed the setting in which the professional development session

occurred. Bean (2004) raised questions related to context such as: How was the professional development session useful to teachers? Did it fit teachers' needs? How receptive were teachers to change? What resources were available to the teachers? *Process* related to how teachers learned information at the professional development session, such as how adult learning needs were met during the session. Professional development providers must examine how the process of teacher learning and change occurred for the sessions to be successful. Bean (2004) highlighted the importance of specific processes, such as duration, feedback for teachers, embedded opportunities, and a sense of recognition, if professional development was to be effective.

Ingvarson et al. (2005) conducted a study of 3,250 teachers who participated in different professional development sessions. The participants were asked to complete a survey three months after the professional development session. This allowed the participants to have time to implement the information from the professional development session into their teaching. The response rate for this study was about 50 percent (Ingvarson et al., 2005). Teachers rated content focus, collaborative examination of student work, active learning, feedback, and follow-up opportunities as elements of effective professional development. Also, the duration of contact hours and time span both impacted teachers' views significantly. Limitations to this study were that the only data source was self-report of perceptions, and an extensive amount of time passed before teachers were asked to respond to the survey. This time may have allowed variables other than the specific professional development session to influence teacher practice.

Desimone et al. (2002) collected longitudinal data (three years) before and after professional development sessions in order to monitor changes in teachers' instructional practices. This study focused on math and science teachers. These data were collected in 30

schools: an elementary, middle, and high school from each of the ten districts that participated in the study. A total of 287 teachers, all participants in the evaluation of the Eisenhower Program, responded to all three waves of the survey (Desimone et al., 2002).

Teachers in the first two waves of the study were asked to describe an effective professional development activity that they participated in during the past year (Desimone et al., 2002). Mathematics teachers in the third wave described all of the professional development sessions they received on mathematics for that (1998–1999) school year (Desimone et al., 2002). The survey identified specific professional development approaches (i.e., mentoring, teacher networks, etc.) and asked the teachers to respond to the following question.

If one of the organized professional development experiences you participated in was particularly helpful to the class you reported [on earlier], please pick an activity. If not, pick any organized professional development activity. You may choose an activity that began before the summer of 1998, if you continued to participate in that activity during the summer of 1998 or the 1998–99 school year. In answering the questions about the activity you have chosen, please include all components of the activity, even if they occurred at different times during the school year. (For example, if you attended a summer institute with follow-up activities during the school year, include both the summer institute and the follow-up activities in your answers.)

(Desimone et al., 2002, p. 85)

Since two levels of data were obtained, strategy level and teacher activity level, hierarchical linear modeling was used for analysis. This study found that active learning, collaboration, and reform type sessions were effective characteristics of professional development (Desimone et al., 2002). Although no effects were found for duration of time, Desimone et al. (2002) indicated that reform type sessions offered teachers more opportunities for collaboration and active learning. These reform type sessions usually occurred over a longer duration of time. Limitations to this study included a small sample size given the number of variables in the study. An additional weakness was in the design of the instruments. The methodology only asked teachers to discuss one professional development session. Since

teachers only were asked to respond to one session, professional development opportunities could have varied greatly (Desimone et al., 2002).

Research conducted by Desimone et al. (2002) indicated that teachers believed that a range of professional development sessions had an impact on them. Desimone et al. (2002) grouped features of professional development into two broad categories: structure and core categories. These categories were divided further into three features that explicitly defined key components that were observed in effective professional development (Desimone et al., 2002; Garet et al., 2001). The structural features included reform type, duration, and collective participation, while the core features incorporated active learning, coherence, and content focus (Desimone et al., 2002). Table 1 defines Desimone et al.'s (2002) six features associated with effective professional development.

The recurring themes (AERA, 2005; Anders et al., 2000; Bean, 2004; Desimone et al., 2002; Guskey, 2000; Ingvarson et al., 2005; NSDC, 2001) are a beginning in establishing necessary components of effective professional development. As research in this area continues to grow, these features will be refined further, thereby enhancing professional development opportunities for teachers.

**Table 1 Characteristics of Effective Professional Development**

<b>Structural</b>	<b>Definition</b>
Reform Type	Such as a study group, teacher network, mentoring relationship, committee or task force, internship, individual research project, or teacher research center, in contrast to a traditional workshop, course, or conference
Duration	Including the total number of contact hours that participants spend in an activity, as well as the span of time over which the activity takes place
Collective participation	The degree to which the activity emphasizes the collective participation of groups of teachers from the same school, department, or grade level, as opposed to the participation of the individuals teacher from many schools
<b>Core</b>	<b>Definition</b>
Active learning	Opportunities for teachers to become actively engaged in the meaningful analysis of teaching and learning, for example, by reviewing student work or obtaining feedback on their teaching
Coherence	The degree to which the activity promotes coherence in teachers' professional development, by incorporating experiences that are consistent with teachers' goals, aligned with state standards and assessments, and encourage continual professional communication among teachers
Content focus	The degree to which the activity is focused on improving and deepening teachers' content knowledge

(Desimone et al., 2002, p. 83)

### 2.1.1 Professional Learning Communities

Traditionally, staff development was conducted in the form of one-shot workshops (Darling-Hammond, 1997). Beresik's (2000) study of teacher beliefs and practices indicated that workshops/courses were the second most frequently used form of professional development, conversations with colleagues being the most common. Although these workshops provided an intense amount of information, reflection involving the content or implementation of specific strategies was not available.

Being members of a community of learners provided teachers with more opportunities for collegial cooperation and invited deeper reflection and, thus, a better understanding of newly-defined pedagogical skills. Teachers must possess a deep understanding of pedagogical knowledge (Shulman, 1986). In one study conducted by Taylor et al. (2000), teachers in schools with the *highest reform effort* credited "collaboration within and across grades as a reason for their success" (p.141). Collaborative efforts in which comfortable learning environments were established allowed collegial dialogue to develop and learning to occur. Deep learning and professional dialogue created a greater understanding of necessary teaching changes (Duffy, 2005; Firestone & Pennell, 1997; Florio-Ruane, Raphael, Highfield, and Berne, 2004; Shulman, 1986).

The school environment changes constantly. Teachers need refined practices and skills to provide the most beneficial learning environments for their students (Duffy, 2005). Teachers can reflect on their practices while receiving feedback from colleagues in a learning community. As teachers begin to collaborate, cooperative problem solving occurs (Duffy 2005). These collegial

communities provide teachers with reoccurring opportunities for reflection and feedback on their instructional practices, leading to a deeper understanding of content, curriculum, and pedagogy (Shulman, 1986).

### **2.1.2 Teacher Learning**

Teachers learn from collegial dialogue and reflection. Thought-provoking conversations among teachers that occur before, during, or after school begin to mold teachers' views on many topics. Cochran-Smith and Lytle (1999) state, "teachers' learning is more constructivist than transmission oriented—that is, it is recognized that both prospective and experienced (like all learners) bring prior knowledge and experience to all new learning situations" (p. 258). Professional learning communities create an environment in which all teachers can participate in reflection and obtain feedback.

Taylor et al. (2005) indicated that when teachers learn together (through discussions) over time, the collaboration among these teachers seems to result in improved instructional practice. Because conversations are a social interaction, learning occurred when this exchange took place (Florio-Ruane et al., 2004). These conversations allowed the "community of learners" to work toward improving student learning.

Educational settings that succeed in establishing "communities of learners" provided options for professional development in a more non-traditional format. Teachers value these communities because they provide opportunities for reflection of teaching, while collaborating with colleagues. Teachers were able to explore new research-based teaching strategies while being supported by a collective group of peers.



The factors that influenced a school's "community of learners" were as varied as the schools themselves. This relatively new umbrella term was so broad that this form of professional development has been implemented differently. Hord (2004) suggested a framework of possible elements required for building effective communities of learners. This framework included: "supportive and shared leadership, shared values and vision, collective learning and application of learning, supportive conditions, and shared practice" (Hord, 2004, p. 7). Teachers who were a part of a community of learners worked together to become more knowledgeable about certain topics and worked together to apply this knowledge to their current instruction. Both application and practice were supported through reflection and feedback by the members of this community.

In order for professional development to be successful, teachers needed to be receptive to professional development and have the feeling that their professional needs were met through these opportunities. A study conducted by the National Center for Educational Statistics (NCES) (1993–1994) included a teacher sample size of 53,003, with a weighted response rate of 88.2 percent. A survey was mailed to the teachers; if teachers did not respond, there was a reminder phone call. Teachers then participated in the data collection through a phone or computer assisted interview (NCES, 1993–1994). Teacher respondents indicated that they were receptive to professional development, stating that professional development was useful (85 percent of teachers). Other teacher needs worthy of consideration when planning professional development included a willingness to participate actively, empowerment of their learning, and recognition of their efforts. This study was voluntary, which did limit the results.

A teacher's willingness to be involved actively in professional development was one condition of a successful session. The maximum effects of professional development cannot be demonstrated if teachers do not participate actively. Taylor et al. (2000) found that staff members

in the least effective schools reported low collaboration among teachers. In contrast, the staff members in the most effective schools were engaged in a great deal of collaboration. Low collaboration among teachers could result in less teacher learning, which could lead to stagnant student achievement.

The value of professional development sessions must be demonstrated to teachers (Bean & Morewood, 2006). NCES (1993–1994) indicated that only 65 percent of the respondents to the teacher survey stated that professional development changed their instructional practice. Teachers who are eager to learn may be more likely to incorporate the new information into their classrooms, therefore facilitating teacher change and improving student achievement.

When teachers felt a sense of control over their learning, application of knowledge was implemented more enthusiastically in classrooms (Florio-Ruane et al., 2004). As teachers became advocates for the content of their learning, they began to focus on areas that impacted their students' learning (Hord, 2004). As teachers began to be more involved in planning the content of their professional development sessions, these sessions became more tailored to individual teacher and student needs. When professional development specifically addressed individual teacher and student needs, teacher learning was more precise and classroom instruction changed.

Ownership and choice in a professional development session also may help to increase the teachers' willingness to participate. When a variety of professional development sessions were available, teachers participated more. Through these choices, teachers were able to develop a plan incorporating their style of learning and focusing on a specific problem or area of interest. This plan moved teachers toward a better understanding or possible solution (Bean, Swan, & Morris, 2002; Lefever-Davis et al., 2003). Again, as professional development became more

tailored to individual teacher needs, the information from these sessions was more likely to be transferred to classroom practice.

Teachers were more likely to flourish when their efforts were recognized (Bean, 2004; Sparks & Loucks-Horsley, 1990). Recognition of efforts to implement new strategies and change instructional practice helped to solidify the need for continuing professional development. Teachers' active participation in professional development grew when recognition of changes to instructional practice became more frequent and student achievement improved.

Teachers' needs must be met for professional development to be successful. Professional development that promoted personal control over learning and acknowledgment of high-quality work generated an eagerness to participate. This participation led to more professional learning, instructional change, and improved student achievement.

### **2.1.3 Outcomes of Professional Development**

#### **2.1.3.1 Student Achievement**

The end goal of any form of professional development is increased student achievement. The American Educational Research Association (AERA) (2005) stated that the research drawing conclusions between professional development and student achievement took place in two distinct phases: generic teaching skills (1960s) and deeper understanding of student learning (1990s). The focus of the second phase was the influence of professional development on student achievement. Guskey and Sparks' (2000) (p. 73) model described the often complex relationships between professional development and student learning (see Appendix A). This model incorporated content, context, and process in quality professional development, which led to teacher knowledge and practices, and therefore improved student learning (Guskey, 2000).

Guskey and Sparks' (2000) model also illustrated other variables that influenced student achievement (see Appendix A).

The literature indicates that teachers participated actively in professional development if they observed their work affecting student achievement (Au, 2002; Sparks & Loucks-Horsley, 1990). As teachers began to reflect metacognitively on their instructor/facilitator role and how specific professional development fits into this role, student achievement was affected (Rosemary, 2005). The AERA (2005) reiterated that professional development must relate directly to a teacher's instruction. Joyce and Showers (2002) suggested that when teachers were engaged in staff development, student learning improved, indicating that as teachers' instructional practices changed, student achievement was affected.

#### **2.1.3.2 Teacher Change**

Professional development is a means of facilitating teacher change on a grand scale. Teachers need access to *effective* professional development to advance their knowledge in order to improve student performance (Snow, Burns, & Griffin, 1998). In order for teacher change to occur, exposure to new research-based information, techniques, and strategies must be available. Richardson and Placier (2001) identified two approaches to teacher change: the normative reeducative approach and the empirical-rational approach. These two models represented a collaborative environment and a traditional professional development format. Collaboration (normative reeducative) continues to be explored as an effective professional development feature that cultivates teacher change.

The normative reeducative approach is sociocultural; individuals change based on what they believe (Richardson & Placier, 2001). Teachers who work within school environments in which collaboration is fostered are able to learn from and support colleagues' skill-building

efforts. “This approach is based on concepts of personal growth and development and on collaboration within the organization that leads to collective change” (Richardson & Placier, 2001).

Teachers who followed the empirical-rational model bring about change once someone has shown them that a new instructional practice works (Richardson & Placier, 2001). The empirical-rational model represents more of a traditional form of professional development. The RAND Corporation (2002) defined traditional staff development as a workshop setting in which a presenter supplies teachers with information. This model was portrayed best by the idea of an expert supplying information to a novice without further guidance or feedback.

Metacognition is the awareness of one’s knowledge and being able to monitor this knowledge effectively (i.e., self-reflection) (Duffy, 2005). Duffy (2005) explained that teachers who were able to self-regulate in the many different environments in which reading instruction occurred often were more effective reading teachers. Teachers who used metacognition practices were able to problem-solve quickly and effectively (Duffy, 2005). Research findings demonstrated that when teachers self-reflect, they are more prepared to navigate through the often turbulent environments in which they work and focus on improving student achievement. “Metacognitive teaching is a subtle and essentially artful process because every instructional situation is unique in one way or another” (Duffy, 2005, p. 306). Teachers who used metacognitive practices were more able to reflect on their teaching and made necessary improvements.

Teacher learning hinged on the ability to self-reflect and make improvements in classroom instruction. Being able to self-reflect provided teachers with the ability to change their instructional practices based on the needs of their students (Duffy, 2005). As teachers’

knowledge grew in content, curriculum, and pedagogy, they were better prepared to meet individual student needs (Shulman, 1986).

## **2.2 RESEARCH IN LITERACY PROFESSIONAL DEVELOPMENT**

As with all content areas, literacy education should improve through the implementation of effective professional development. The Marlow et al. (2005) study focused on how teachers were trained to *implement* a literacy reform effort and the teachers' understanding of the reform effort. In a four-point Likert scale survey of 400 teachers across ten Southeastern states, Marlow et al. (2005) investigated whether explicit explanations of literacy initiatives lead to successful implementation in individual teachers' classrooms.

Each literacy initiative was unique to the school district; however, Marlow et al. (2005) were interested in teachers' perceptions of their understandings of the initiative, and how this affected the implementation. Nearly two-thirds of the respondents either disagreed or strongly disagreed that professional development opportunities provided by the school district enhanced their knowledge base. The survey responses also indicated that approximately half of the teachers felt that the school district did not provide a thorough description of the initiative (Marlow et al., 2005). Teachers expressed concerns over both the quantity and quality of the professional development opportunities that were provided (Marlow et al., 2005).

The Likert survey was the only instrument used in this study. Also, participation was voluntary and the participants were selected randomly by their principals to participate in the survey. This selection approach may have caused the finding to be skewed.

In order for literacy professional development to make a significant difference in teachers' instruction and student outcomes, it must be focused around the key components described previously. Guskey (2000) discussed the issue of adequate time for professional development sessions and accurate and appropriate implementation of new knowledge in instructional settings. AERA (2005) presented the issue of aligning professional development with research, teacher practice, and federal policy. And NSDC (2001) proposed three key areas to consider in professional development (content, context, and process).

In the following section, research studies on professional development in reading are analyzed. The characteristics of effective professional development discussed by Desimone et al. (2002) were used to analyze research studies on professional development in reading. These characteristics are represented in each of the nine different reading research studies (see Appendix B). The studies are summarized in Figure 1.

Figure 1 represents how many times each of the effective characteristics presented by Desimone et al. (2002) were found in reading research focusing on professional development. All of the reading research studies had some combination of at least five of the six effective characteristics identified by Desimone et al. (2002). The most commonly identified characteristics were a reform type session, involved active teacher learning, and coherence, according to Desimone et al.'s (2002) definitions (Figure 1). Generally the research on reading professional development referred to duration of time as the *time span* of the professional development activities; however, one study (Van Keer & Verhaeghe, 2005) discussed duration as the *number of contact hours* that were spent in a professional development activity. Collective participation was present in eight of the studies, and seven studies addressed content focus.

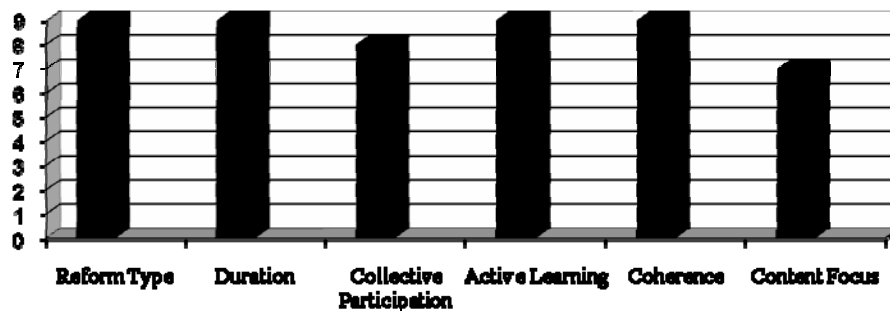


Figure 1 Total Number of Characteristics Found in Literacy Research

### 2.2.1 Instructional Practice

Evidence of successful professional development often was determined by obtaining information about teacher perceptions. In fact, Boyle, While, and Boyle, (2004, 2005); Kinnucan-Welsch, Rosemary, & Gogan, (2006); Pedrotty Bryant, Linan-Thompson, Ugel, Hamff, and Hougen (2001) used multiple approaches to determine teachers' perceptions of professional development. Knowledge about teacher perceptions typically was obtained through a form of self-report (i.e., surveys, questionnaires, interviews, and checklists). Most often, data were collected through multiple sources. Table 2 illustrates the data collection tools used in each of the reading research studies.



**Table 2 Data Collection Tools used in Literacy Research**

Study	Survey/ Questionnaire	Interviews	Case Studies	Checklists	Observations	Teacher Logs	Standardized Tests
Boyle et al.(2004)	X						
Boyle et al. (2005)	X						
Kinnucan-Welsch et al. (2006)	X						
Pedrotty Bryant et al. (2001)	X	X		X			
O'Connor, Harty, & Fulmer (2005)							X
Taylor & Pearson (2005)		X			X	X	X
Taylor et al. (2000)	X	X	X		X	X	X
Taylor et al. (2004)		X			X	X	X
Van Keer & Verhaeghe (2005)	X						X

Kinnucan-Welsch et al.'s (2006) Literacy Specialist Project (2000) (Ohio Department of Education) data set consisted of teacher perceptions via self-report. The initiative was two-fold: to provide K-3 teachers with knowledge in literacy pedagogy (statewide) and to provide high-quality professional development within each district (Kinnucan-Welsch et al., 2006). The sample included 14 field faculty, 353 literacy specialists, 2,490 teachers in 122 schools (Kinnucan-Welsch et al., 2006). The surveys consisted of questions about teachers' understanding of conceptual elements of the curriculum. The teachers were asked to respond to these questions using a Likert Scale of 1–5. Teacher change was measured by pre/post answers on the survey. The data were analyzed using a paired *t* test to compare pre/post answers. The information collected on teacher change by Kinnucan-Welsh et al. (2006) through pre/post surveys demonstrated statistically significant results. These findings suggested that teachers (through self-report) indicated having a deeper understanding of literacy knowledge after the professional development session. All six of the Desimone et al.'s (2002) effective characteristics (content, coherence, collaboration, active learning, reform type, and duration) were identified in this professional development initiative.

Although the pre/post surveys did yield statistically significant results, a limitation to these findings includes data collection in the form of self-report and a single form of data (i.e., no triangulation of results). Also, this research only provided information on teachers' self-perception of their knowledge.

Pedrotty Bryant et al.'s (2001) research focused on providing instructional strategies for content area reading teachers. The sample for this study was comprised of ten urban middle school teachers in both general and special education. This study used checklists, interviews, and

questionnaires in the data collection. The findings of this study included positive teacher opinions about in-service opportunities, a need for more in-class modeling, support at both the building and district level for implementation, and integration of reading strategies at the middle school level. Another finding was lack of enthusiasm of teachers for the weekly support meetings (Pedrotty Bryant et al., 2001). Key features of both traditional and reform types of professional development were found; also duration, collaboration, coherence, and active learning all were included in the professional development sessions (Desimone et al., 2002).

Overall, the results of the data analysis indicated that teachers were confident of their knowledge of the new reading strategies. Pedrotty Bryant et al. (2001) stated that post interviews demonstrated that even with acknowledged understanding by the teachers, implementation of the strategy still was low because of the need for more time to implement the strategies. The limitations to this study included having a small sample size; generalizing results was difficult with only ten participants. Also, time constraints limited teachers' ability to implement the strategies and to monitor student progress.

Boyle et al.'s longitudinal study (2004, 2005) consisted of two phases. It included 779 participants from both elementary and secondary schools in the content areas of English, math, and science. The results of year two indicated that most teachers participated in some form of professional development; these sessions generally were longer than traditional workshops. This study specifically examined the effects of professional development on teacher change. The survey asked teachers to indicate whether the professional development changed their teaching practices. Boyle et al. (2004) stated, "77 percent of the participants in longer-term professional development activities changed their practices in at least one aspect of their teaching practice" (p. 46). According to the data set, the first wave of responses indicated that more than one-third

of the respondents had changed, given professional development opportunities. The second wave results indicated that more than half of the teachers changed at least one aspect of their instructional practices after attending a professional development session. The data to this point in the longitudinal study indicates that teachers who participated in professional development of any form exhibited some instructional change (Boyle et al., 2005). Again, a limitation to this study included a single survey. This longitudinal study used only a survey and therefore excluded any reliability checking. Another limitation suggested by Boyle et al. (2005) was that a large number of first-year respondents did not respond the second year. Boyle et al. (2005) suggested this may be due to teacher attrition.

### **2.2.2 Student Achievement**

The ultimate goal of providing teachers with effective professional development is to improve student achievement. Taylor et al. (2000) and Taylor and Pearson (2005) examined the effects of professional development on teacher change, as well as student achievement.

Taylor et al.'s (2000) study on *Effective Schools* used a variety of data collection methods. These included classroom and district assessments, observations, teacher logs, teacher and principal questionnaires, interviews, and case studies. The national data set included two teachers from each grade level (K–3) and two low students and two average students (in reading) in 14 schools.

All teachers involved in the study participated in a year-long professional development effort that included coursework (two hours per month) and mentoring from a peer coach twice per month. During the interviews, teachers stated that the duration of time spent in the sessions was a positive factor in literacy professional development (Taylor et al., 2000). According to the

data, both year-long school district workshops and graduate courses were effective forms of professional development. Effective professional development was measured by student achievement scores. The schools that made the most improvement were deemed *effective*. Teachers in the most effective schools described many collaboration efforts, which were incorporated during professional development opportunities among the staff. Again, the duration of the professional development opportunity seemed to affect instructional practice (Taylor et al., 2000).

Taylor et al. (2000) were very clear about limitations to this research. The researchers cautioned the reader that these findings were correlations between teachers' instruction and student achievement; they were not causal. In order to improve the reliability of the study, Taylor et al. (2000) suggest assessing more students. The final limitation suggested by Taylor et al. (2000) was that the initial characteristics of the participating schools could have been misleading, and changes in school leadership during the implementation may have caused differences in the results.

The CIERA study conducted by Taylor et al. (2005) explicitly described and discussed professional development and the effect it had on literacy practices. In the 13 schools across the United States (totaling 92 teachers and 733 students) in Taylor et al.'s (2005) study, when a professional development framework was implemented with high teacher participation and engagement, positive teacher change occurred and student achievement improved.

Teachers' instructional practices were captured through classroom observations and ongoing interviews conducted by Taylor et al. (2005). During the CIERA study, teachers were observed three times throughout the school year (fall, winter, and spring) in order to measure their instructional changes. The observation rubric was designed to capture what was occurring

in the classroom. Taylor et al. (2005) connected teacher changes to positive student improvement by analyzing the data over time. The results indicated a small improvement from the beginning of the school year to the end of the school year; however, there was a greater improvement when the data were analyzed across two years.

Heirarchical linear modeling was used to analyze the data. The results of this investigation demonstrated that reform sessions (study groups) conducted over time, in which teachers worked collaboratively together, created teacher change. The main limitation suggested by Taylor et al. (2005) was that although all schools agreed to implement the framework, the schools could have implemented it differently; therefore, fidelity to the framework may have skewed the results.

Taylor and Pearson (2005) looked closely at increasing student reading comprehension through teacher study groups. This research was part of the CIERA study and examined professional development through teacher reflection in collaborative study groups. The study groups that were implemented in the CIERA study focused on “the iterative steps of (a) looking at student data, (b) making choices for professional development based on the data, (c) using collaborative study groups as a vehicle for reflection on changes in teaching practices, and (d) revisiting sources of data to evaluate the success of their individual and collective efforts” (Taylor and Pearson, 2005, p. 239). The study groups specifically used standardized tests, observations, interviews, and field notes (e.g., group meeting notes, facilitator logs, notes from the site visits, etc.).

Taylor and Pearson (2005) found that in high reform effort schools, the mean score for higher-level questions increased; however, in low reform effort schools, the mean score of higher-level questions did not increase. Another finding of Taylor and Pearson (2005) was that

“12 of 12 teachers in grades kindergarten through fifth grade made positive comments about the CIERA study group process” (p. 250). One half of the teachers responded positively about the value of the collegiality of the study groups (Taylor & Pearson, 2005). A limitation specific to the study groups was the small sample size (12). This small sample made the results difficult to generalize.

The research base in literacy professional development was minimal, and experimental design in literacy research was even more limited. O’Connor, Harty and Fulmer (2005) and Van Keer and Verhaeghe (2003) conducted experimental studies in the area of professional development with a focus on literacy and student achievement.

O’Connor et al.’s (2005) work consisted of a historical control group of teachers and their student placement rates in special education. The experimental group of 20 teachers in grades K–3 (approximately 100 students) received ongoing professional development based on the National Reading Panel’s (2000) suggestions. The key features of duration and a reform type (Desimone et al., 2002) were used in this design. The experimental group was established to examine whether ongoing professional development (labeled Tier 1) would create different outcomes for students who had small group intervention (labeled Tier 2) and those who had daily individual or groups of two interventions (labeled Tier 3). Student achievement data were collected through standardized tests (e.g., Woodcock Reading Mastery Tests – Revised – Normative U), professional development, and rates of placement into special education.

The results demonstrated that students in the historical control group scored lower on assessments than those in the experimental group, and the placement rate for Special Education services fell in the experimental group. The limitations for this study included a small sample size and comparing two different groups of students (i.e., historical group and present group).

Van Keer and Verhaeghe (2005) examined two forms of professional development: coaching and traditional in-service. In this study, 30 randomly assigned teachers (and their 272 second and 342 fifth graders) engaged in either year-round coaching or a traditional in-service professional development session. Both forms of professional development were focused on reading comprehension in the elementary school. The Van Keer and Verhaeghe (2005) study consisted of a survey that had 45 Likert scale questions. In relation to Desimone et al.'s (2002) work, the key features of professional development identified in this study were duration, reform type, and coherence. According to Van Keer and Verhaeghe (2005), the results (teacher surveys and student achievement data) indicated that both forms of professional development changed teacher's instructional practices. Limitations to this research include data collection through self-report surveys. Student achievement data and teacher survey were the only forms of data collection. Although both of these data collection techniques were valid, it was difficult to triangulate data and draw themes that could be generalized in the field.

The work by O'Connor et al. (2005) and Van Keer and Verhaeghe (2005) indicated that a longer duration of time in a reform type setting did impact teachers' instructional practices. However, Van Keer and Verhaeghe's (2005) work also demonstrated that teachers made instructional changes in their practice when they were involved in a traditional professional development format, which required less time, therefore being less rigorous than the coaching experience. The results indicated no significant difference between the types of professional development session and teacher change. Teachers involved in the traditional professional development session did report having a greater workload. Fifth grade teachers participating in the traditional in-service also reported significantly higher reading comprehension scores than



the second grade teachers and those fifth grade teachers who were coached intensively (reform type session). The quality of in-service provider and/or coach was not addressed in this study.

The research conducted by Van Keer and Verhaeghe (2005) also examined the coherence of the professional development session in relation to the teachers' philosophies. In both of the professional development settings, teachers reported that they were comfortable with the information and materials that were provided. This again demonstrated that coherence of a professional development activity to teachers' instructional practice was established in either a traditional or reform type setting.

The Pedrotty Bryant et al. (2001) study used both traditional and reform type formats. In this study, teachers reported that traditional professional development sessions were helpful when implementing literacy initiatives; however, the teachers indicated a need for more in-class modeling of the strategies that were presented in the workshops. The duration of time was designated by teachers as one key feature of effective professional development (Boyle et al., 2004, 2005; Kinnucan-Welsch et al., 2006; Pedrotty Bryant et al., 2001). Teachers seemed to value collective participation (Boyle et al., 2004; Kinnucan-Welsch et al., 2006; Pedrotty Bryant et al., 2001) and coherence (Boyle et al., 2004; Kinnucan-Welsch et al., 2006; Pedrotty Bryant et al., 2001). Kinnucan-Welsch et al. (2006) and Pedrotty Bryant et al. (2001) found active learning necessary for effective professional development while Boyle et al.'s (2005) and Kinnucan-Welsch et al.'s (2006) research indicated content focus to be a key feature of literacy professional development.

Specifically, according to Taylor et al. (2000, 2005) professional development, which extended over a duration of time and required collective teacher participation, positively impacted student achievement. Both studies indicated the need for collective participation over

time. O'Connor et al. (2005) and Van Keer and Verhaeghe (2005) both indicated duration of time to be a characteristic associated with effective professional development. Van Keer and Verhaeghe (2005) also suggested that the reform type format and coherence for the teacher were characteristics of effective professional development.

## **2.3 EFFECTIVE LITERACY INSTRUCTION**

### **2.3.1 National Reading Panel Report (NRP)**

This report synthesized research on effective reading instruction. This meta-analysis described relevant information about necessary beginning reading skills and provided suggestions for effective ways to teach these reading skills. The panel reviewed research that was high quality, effective, generalizable, and focused on improving reading skills (NRP, 2001). The five main categories addressed by the NRP were: phonemic awareness, phonics, fluency, vocabulary, and comprehension.

According to the meta-analysis, various activities help students learn to read and spell by helping them understand how to manipulate the spoken language (e.g., phonemic awareness) (NRP, 2001). The NRP reported that students needed effective phonemic awareness instruction, which included phoneme isolation, identity, categorization, blending, segmentation, deletion, addition, and substitution. However the NRP suggested that phonemic awareness instruction should focus on a few of these activities to be most effective.

The NRP (2001) findings on phonics instruction suggested teaching phonics through systematic and explicit instruction (NRP, 2001). The meta-analysis indicated that the systematic

and explicit approach was most effective for beginning readers, and improved students' comprehension skills. In addition, the NRP (2001) report indicated that all students would benefit from this type of instruction; however, the research indicated that the students with reading difficulties would benefit most from this type of instruction.

The NRP (2001) reported that fluency instruction was important because students who read with automaticity more often were able to comprehend the text. Fluency instruction should include modeling fluent reading and having students participate in repeated readings of the text.

According to the NRP report (2001) students develop their vocabularies through direct and indirect instruction. Students need direct instruction that focuses on specific words and strategies for word analysis. Indirect vocabulary instruction occurs through daily oral language, during read aloud opportunities, and when students read independently.

The NRP report (2001) indicated that comprehension strategy instruction improved students' comprehension of text (NRP, 2001). The strategies suggested by the NRP (2001) were monitoring comprehension, using graphic organizers, answering questions about the text, generating questions, reviewing story structure, and summarizing. The NRP (2001) recommended that these strategies be taught explicitly to students, that cooperative learning should be included in comprehension strategy instruction, and that students should understand how to use different combinations of these comprehension strategies. The panel recognized that there also were other comprehension strategies; however, the strategies described above were found to be the most grounded in scientific reading research.

### **2.3.2 National Council of Teachers of English (NCTE)**

The National Council of Teachers of English (NCTE) (2004) provided eleven recommendations for effective writing instruction. These recommendations acknowledge that writing instruction has changed and that there are many elements to writing and writing instruction (NCTE, 2004).

The following recommendations guide NCTE's beliefs on effective writing instruction:

1. Everyone has the capacity to write, writing can be taught, and teachers can help students become better writers.
2. People learn to write by writing.
3. Writing is a process.
4. Writing is a tool for thinking.
5. Writing grows out of many different purposes.
6. Conventions of finished and edited texts are important to readers and therefore to writers.
7. Writing and reading are related.
8. Writing has a complex relationship to talk.
9. Literate practices are embedded in complicated social relationships.
10. Composing occurs in different modalities and technologies.
11. Assessment and writing involves complex, informed, human judgment.

(NCTE, 2004)

## **2.4 CONCLUSION**

Professional development is one way that large-scale teacher learning can be implemented throughout school systems. It also is an area that needs more research. Current research indicated that teachers who received professional development were more effective (i.e., student achievement increases). Generally, research has begun to identify characteristics embedded in professional development that made these learning experiences more effective for teachers. Now, general information about characteristics of effective professional development must be applied to research about professional development related to reading instruction.

Student achievement and teacher change need to be examined more closely as outcomes of professional development. Research studies must be designed specifically to examine the links between professional development, teacher change, and student achievement. As these links are more closely examined, professional development activities can be tailored more to teachers' specific needs and therefore be more beneficial to teachers and students.

Professional learning communities are one way to differentiate professional development and promote collegial dialogue. Research, specifically literacy research, must focus on how these learning communities operate in different settings. These settings must be viewed through a variety of lenses (i.e., Desimone et al.'s (2002) six characteristics) to understand better how these learning communities function and provide teachers with necessary information for their instructional practice.

Desimone et al. (2002) provided a framework by which to examine professional development; these characteristics can be refined and built upon. Characteristics that can be studied include duration of time, and examination of how the professional development sessions are presented: traditional or reform. An examination of teacher participation can include investigations of teacher participation and collaboration. Lastly, the content of professional development sessions must be investigated to see whether the topics covered influence knowledge of content, pedagogy, and curriculum.

Research must focus on which elements of professional development provide teachers with the most valuable experience. As teachers acquire a deeper understanding of content, pedagogy, and curriculum, knowledge from the professional development sessions should impact their teaching and student learning. Teachers who transfer their knowledge of effective literacy instruction to their classrooms should provide more high-quality instruction to their students.

Although research suggested that collaborative professional development increases student achievement, limited research was available. Further research still is needed in order to comprehend the influence that professional development may have on literacy achievement.

The goal of this study was to focus on the connections between teacher learning and teacher instructional practices. Examining the connections between professional development and improving student achievement would be the next step in professional development research, specifically reading research. By studying the professional development opportunities of a Reading First school where student achievement improved, the connections among these three areas (i.e., teacher learning, teacher practice, and student achievement) were analyzed by using what is known about effective professional development.

### **3.0 RESEARCH METHODOLOGY**

The purpose of this study was to identify and describe the features of the professional development activities of a Reading First school where student achievement improved. A case study approach was selected because an “investigation must cover both a particular phenomenon and the context within which the phenomenon is occurring” (Yin, 1993, p. 31). This particular case was chosen to explore how professional development may be related to school change and improvement. Case study research was a conscious choice to study a specific case in order to further understand a particular interest (Stake, 1994).

In order to ensure that accurate conclusions were drawn, multiple sources of data were collected and analyzed. These sources included teacher, coach, and principal interviews, field notes taken during classroom observations, and secondary data involving self-report Annual Progress Reports collected by the Reading First External Evaluation Team.

The focus of this qualitative research was to describe the professional development that occurred during the 2006–2007 school year in a specific school. This intensive research described the setting of the environment and the professional development activities that occurred over a period of time, and evaluated the meaning(s) of the actions and settings of the participants (Miles & Huberman, 1994) by closely examining the professional development that occurred throughout the school year. A descriptive case study approach was used to describe the context of the setting. The theory or questions to be examined were established a priori,

providing a framework for a clear illustration of the case. Because the variables in case study research were not manipulated, the context of the setting helped to deepen knowledge of specific hypotheses (Yin, 1993).

Sampling was conducted within-case and was driven by theory. The focus of this within-case sampling was not structured to represent varied settings, but rather to answer, through description, preconceived questions. Because within-case sampling was not centered on representing diverse populations, it allowed the researcher to review the data and draw conclusions consistently, providing a richer description of the case.

### **3.1 CONTEXT FOR THE STUDY**

This particular case was chosen in order to describe the professional development efforts that occurred in this Reading First school where reading achievement improved. Specifically, what were the school-wide perceptions of these opportunities, and what impact did professional development have on individual teacher practices, and on the school as a whole? Multiple sources of data were collected, analyzed, and triangulated to draw conclusions.

### **3.2 DEMOGRAPHICS OF THE PARTICIPANTS**

Richard School District (pseudonym) is in Ash County (pseudonym). In 2000, Ash County had a population of 94,643 (Chamber of Commerce, 2005). Ash County (2005) had a 12 percent poverty rate, and the unemployment rate was 5.6 percent. There were similar percentages of



white collar (26.6 percent) and blue collar (31.6 percent) workers in Ash County (Chamber of Commerce, 2005). Three main types of employment in Ash County were wholesale and retail trade, health care, and manufacturing (Chamber of Commerce, 2005). There were 25,886 families living in Ash County in 2000; 30 percent were two-parent households, 16 percent were single-mother households, 5 percent were single-father households, and different family living combinations constituted the additional 49 percent of the households (Chamber of Commerce, 2005). Richard School District was rated ninth out of the top 20 employers in Ash County (Chamber of Commerce, 2005).

### **3.2.1 District**

Richard School District consists of eight schools: two kindergarten centers, three primary centers, an intermediate school, a junior high school, and a high school. The National Center for Educational Statistics (2004) reported Richard School District's total student population as 3,774. There were 239 teachers in this district; therefore, student to teacher ratio was 15.8:1 in 2004. Also, Richard School District reported having 629 (16.7 percent) students with an Individualized Educational Plan (IEP). Richard School District's dropout rate for the 2004–2005 school year was 2.7 percent (Pennsylvania Department of Education, 2004). This rate was calculated for a single year from the fall enrollment in grades 7–12 (Pennsylvania Department of Education, 2001).

Richard School District received the Reading First grant in January 2003. Richard was awarded the grant for a total of six years. One kindergarten center and three primary centers were Reading First grant recipients. Southwest Educational Development Laboratory SEDL (2006)

reported Richard School District's poverty rate to be 51 percent, and 41 percent of the students in the district were reading below grade level in 2003 (the award date).

### **3.2.2 School**

Jacolyn Elementary School (pseudonym), in Richard School District, had a 50 percent poverty rate, and had a school wide Title I program (SEDL, 2006). The racial distribution for the school year 2006–2007 at Jacolyn Elementary School was 29 percent black and 71 percent white/other (Local School Directory, 2007). Jacolyn Elementary School (SY 2006–2007) included grades 1–3 and had 19 teachers: 15 classroom teachers, one computer teacher, one music teacher, one gym teacher, and one special education teacher (i.e., emotional support). According to the 2005–2006 Reading First Annual Progress Report, there were five teachers at Jacolyn Elementary School that were either new to the position, grade, or school. Also, during the 2006–2007 school year, two new teachers became part of the faculty at Jacolyn Elementary School (Annual Progress Report, 2006–2007); however, these two new teachers did not participate in this study. In the Annual Progress Report schools were not required to stipulate which of the three previously stated categories teachers were new too in either of the years that were included in this data.

During the school years 2005–2006 and 2006–2007, there were five classrooms at each grade level (i.e., grades 1–3). Jacolyn Elementary School's average daily attendance was 88 percent while the Pennsylvania state average was 92 percent (Annual Progress Report, 2005–2006). The range of classroom daily attendance at Jacolyn Elementary School was 82–91 percent (Annual Progress Report, 2005–2006). The 2006–2007 Annual Progress Report did not ask schools to provide information about the average daily attendance or the classroom daily attendance; therefore, these numbers were not available.

Jacolyn Elementary School provided the total number of students in each grade level for the 2006–2007 school year; there were 92 students in grade one; 104 in grade 2; and 89 in grade 3 (Annual Progress Report, 2006–2007). Nine students at Jacolyn Elementary School received special education services: three students in grade 1, four students in grade 2, and two students in grade 3 (Annual Progress Report, 2006–2007). Two students in the school were classified as English Language Learners, one in grade 2 and one in grade 3 (Annual Progress Report, 2006–2007). Jacolyn Elementary School indicated that English was the only language used to provide instruction in all fifteen of the school’s classrooms (Annual Progress Report, 2006–2007). The total number of students who received free/reduced price lunch was 139 (about 51.5 percent) (Annual Progress Report, 2006–2007).

A librarian was available three days a week at Jacolyn Elementary School. The school had a full-time reading coach who also was the SFA facilitator, a part-time reading coach who traveled to the school on a six day schedule, and a certified reading specialist who supervised the literacy lab. Five reading tutors were available daily at the school: one for five hours a day and four for three-and-a-half hours a day. These tutors were certified teachers who were able to provide one-on-one tutoring for 20 minutes each day to students in need. There also was a daily behavior aide, and an AmeriCorps volunteer was available three days a week.

The External Evaluation of Reading First in Pennsylvania: Annual Report Project Year 3 (2005–2006) looked at the overall state achievement of Reading First schools and at the achievement of individual schools over time. The External Evaluation Report (2005–2006) defined the two variables of an improving school as “(1) increasing the percentage of students at grade level and (2) reducing the number of students below the 20th percentile.” In addition, the External Evaluation Report stated:

The data used in constructing these variables are averaged across grade levels 1, 2, and 3 using scores from the Terra Nova Reading subtest and the PSSA reading. For each school, the percent of students performing “on grade level” and the percent of students performing “at-risk” were calculated for each grade, for each of the three years of implementation. Then by grade level and variable, a slope of “improvement” was calculated representing the rate of change on each of the two improvement variables for each of the three grade levels. For each school, the three slopes representing changes in the percent of students performing at grade level in grades one, two, and three were averaged.

(External Evaluation Report, 2005–2006)

Based on the above definitions provided by the External Evaluation Report, Jacolyn Elementary School was considered an improving school.

### **3.2.3 School-wide Reading Programs**

Success for All (SFA) (2005) was identified by Jacolyn Elementary School as the core reading series (Annual Progress Report, 2006–2007); therefore, it was implemented during the required 90-minute reading block. SFA is based on the premise that all children can learn to read, and it is focused on disadvantaged and at-risk students (Success for All, 2005). The SFA program understands that prevention of reading difficulties is critical to ensuring reading success for most students; however, it also acknowledges that some students will need intervention because of the difficulties that they find with reading (SFA, 2005). Many interventions are embedded in this program (i.e., one-on-one tutoring, reading modifications in other content areas, etc.) so that every student achieves reading success.

SFA is a nonprofit organization, created by Slavin and Madden, who are located at John Hopkins University; SFA was introduced to schools in 1987 (Success for All, 2005). This program has undergone research by independent teams, and student achievement has improved in schools where this program was implemented (Borman & Hewes, 2002; The Comprehensive School Reform Quality Center, 2005). SFA (2005) is used in 46 states (1,300 schools) and in

five other countries. The current curricula available through SFA are elementary reading, writing, math, preschool, and middle school. SFA (2005) also has specific programs for Reading First and Early Reading First. Jacolyn Elementary School had implemented the SFA reading program. In fact, the principal indicated in his interview that Jacolyn Elementary School had implemented the SFA program for a total of eight years (i.e., this school was only a Reading First school for three years).

The basic guidelines of the SFA program require that all teachers be involved in teaching reading in the school. The students are grouped according to their reading levels (i.e., these levels are derived from assessments that are included in the SFA program) and each teacher provides a whole group lesson for his/her group. According to SFA, all of the reading lessons begin with a teacher read-aloud.

The SFA reading program has two stages, *Reading Roots* and *Reading Wings*. *Reading Roots* focuses on phonics instruction and includes instruction in story structure, comprehension skills, metacognitive reading strategies, and reading and writing instruction (Slavin & Madden, 2006). *Reading Wings* focuses more on text comprehension. *Reading Wings* incorporates phonics aspects (i.e., word decoding instruction); however, it also includes more instruction around text comprehension, (i.e., story structure, prediction, and summarization), vocabulary, and writing (Slavin & Madden, 2006).

Jacolyn Elementary School used the *Roots* and *Wings* reading portions of the program. The *Roots* curriculum was used in first and second grade, while the curriculum for *Wings* was deemed appropriate for second and third grade. All of the teachers who participated in this study taught from the *Wings* portion of the program. SFA student groupings are designated by year and semester. For example, Teacher 6 taught *Wings* 2.2, meaning she taught reading at the second

grade, second semester level. Jacolyn Elementary School used the assessment provided by SFA to determine where the students were placed for reading instruction.

Since the students were grouped by their instructional level for reading, teachers did not necessarily teach students from their homeroom or even students at the grade level of their homeroom. Again, using Teacher 6 as an example, she was a third grade homeroom teacher; however, she taught an SFA reading level that was indicative of the second semester of second grade. Teacher 6 indicated that this was helpful to her because it provided her with an additional year of knowing the students to help prepare them better for the statewide assessment that occurred in third grade.

### **3.2.4 Additional School-wide Reading Programs**

Jacolyn Elementary School reported that all of its students received reading instruction beyond the required 90-minute block (Annual Progress Report, 2005–2006). In the Annual Progress Report (2006–2007), it was reported that 50 students in grade 1, 7 students in grade 2, and 12 students in grade 3 received additional reading instruction. This was in addition to the time spent in the school-wide literacy lab (i.e., these students could have had additional reading instruction from one of the tutors at Jacolyn Elementary School).

Since Jacolyn Elementary School had adopted a core reading program before the onset of the Reading First grant, the funding that this grant provided did not entirely support the core reading program. A literacy lab was started at Jacolyn Elementary School and additional published reading programs were used in it to provide more opportunities for reading instruction.

All of the students at Jacolyn Elementary School used the Accelerated Reader Program (2007). Each student used Failure Free Reading (1988), Read Naturally (1991), and Success

Maker (2007) during the time spent in the literacy lab. The students went to the literacy lab with their homerooms. Each homeroom used the literacy lab at least twice a week, for about one hour a week; this was beyond the 90-minute reading block. The literacy lab provided additional differentiated literacy instruction for students at Jacolyn Elementary School. The students were divided into three groups, each of which worked on one of the three reading programs. The students' reading instruction was differentiated within these programs, since the students were able to work through the programs at their own pace and instructional level. For example, students worked at their individual level at the Read Naturally (1991) station and recorded their own progress at the end of the literacy lab session.

The Jumpstart program (2000) was used by third graders for test-taking skills, while first and second grade children used workbooks that were similar to the Terra Nova assessment for test preparation. A school-wide calendar indicated to teachers which lesson was taught each day. Other reading programs used at Jacolyn Elementary School included Essential Elements of Reading (1988), used during homeroom for vocabulary instruction.

Also, an additional book incentive program was associated with each homeroom. Each student received a book at his/her instructional level. A certain amount of time was allotted to read the book and then an assessment was given. The homeroom with the highest number of perfect assessments received a prize.

### **3.2.5 Assessments**

Because Jacolyn Elementary School was a Reading First grant recipient, the faculty was required to administer the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessment. Tutors, Title I, and instructional aides administered the DIBELS assessment on all

students. According to the DIBELS scores, 9 percent of first grade students, 20 percent of students in grade two, and 23 percent of students in grade three at Jacolyn Elementary School were judged to be “at-risk” for Oral Reading Fluency (ORF) in the spring of the 2006–2007 school year.

Each elementary school in Pennsylvania is required to administer the Pennsylvania System of School Assessment (PSSA) in grades 3 and 5. Students are then scored, using four levels of performance: advanced, proficient, basic, and below basic. Jacolyn Elementary School used the SFA 4-Sight Test to prepare students for the PSSA. The 4-Sight Test provided students exposure to similar content and format of the PSSA. The 4-Sight Test was given to students during the fall as a pretest, and the PSSA was administered in the spring.

The statewide mean scaled score for third grade reading on the PSSA was 1296 (Pennsylvania Department of Education, 2004) of a possible 1600. According to the Pennsylvania Department of Education, the Richard School District (SY 2003–2004) mean scale score for third grade reading was 1247; Jacolyn Elementary School’s mean scale score for third grade reading was 1234. The PSSA mean score for 2004–2005 at Jacolyn Elementary School was 1243 and the 2005–2006 mean score was 1328. Jacolyn Elementary School reported improving third grade scores for the last three years; in addition, more students were performing on grade level. The *percent on grade level* for Jacolyn Elementary School represented students whose scores placed them in either the proficient or advanced category for each school year (see Table 3).



**Table 3 Percentage of Jacolyn Elementary Students on Grade Level (PSSA)**

Year	Jacolyn Elementary School PSSA Scores Third Grade	Jacolyn Elementary School % on Grade Level (PSSA) Third Grade
2003–2004	1234	33
2004–2005	1243	47
2005–2006	1328	57

The final assessments administered by Jacolyn Elementary School were those that were part of the Success for All (SFA) core reading program. The students were assessed three times during the year (fall, winter, and spring) in order to place them at their instructional level for reading instruction.

### **3.2.6 Professional Development at Jacolyn Elementary School**

During 2004–2005, Jacolyn Elementary School received 29 hours of formal professional development. According to the Annual Progress Report (2004–2005), the professional development was presented by the Reading First coach, the Reading First technical assistant, university representatives, private consultants, and a reading specialist. The topics included in this formal professional development were 4-Square Writing, assessment data, vocabulary instruction, and information about the SFA program.

The Reading First Annual Progress Report collected from each school was used to summarize the formal professional development sessions available to K–3 teachers. In 2005–

2006, Jacolyn Elementary School reported a total of 30 hours of formal professional development. A variety of topics were discussed in the sessions (i.e., Reading First, reading instruction, differentiated instruction, and assessment). Formal professional development opportunities were conducted at many levels (i.e., school-wide, district-wide, and K–3 only) and led by several presenters (i.e., Reading First coach, Reading First technical assistant, other presenters). The Annual Progress Report did not collect information about “informal” professional development, such as grade level meetings, study groups, or coaching (Progress Report, 2005–2006).

In 2006–2007, Jacolyn Elementary School reported a total of 9.5 hours of formal professional development, which was defined as those sessions that had a presenter and a focus on literacy (Annual Progress Report, 2006–2007). The Annual Progress Report did not require schools to list the topics of these sessions. Jacolyn Elementary School did indicate that teachers attended grade level meetings twice a month and that teachers did not participate in study group meetings (Annual Progress Report, 2006–2007).

Since Jacolyn Elementary School was a Reading First grant recipient, the teachers in this school had the opportunity to participate in on-line professional development through Learning Sciences International (LSI). Jacolyn Elementary School’s 2006–2007 Annual Progress Report indicated that five teachers enrolled in the course *Early Literacy: Guiding Principles and Language Development*, two teachers enrolled in *Fluency and Vocabulary Development*, and two teachers enrolled in *Developing Independent Readers*. The Annual Progress Report indicated only the number of teachers enrolled in each of the courses; it did not indicate whether teachers were enrolled in more than one course.

According to the 2006–2007 Annual Progress Report, the full-time reading coach was the facilitator for all of the on-line courses. Jacolyn Elementary School’s principal did enroll in the on-line course for administrators, (i.e., *Providing Instructional Leadership in Early Literacy*); however the full-time and part-time coaches were not enrolled in the on-line courses provided for coaches (i.e., *Coaching I*, *Coaching II*, and *Problem-based Approach to K-3 Literacy Coaching*) (Annual Progress Report, 2006–2007).

Individual teachers also indicated that they received outside credits from the Intermediate Unit or local colleges. Professional development opportunities provided by the coach were “needs-based.” According to the full-time coach, coaching was provided as needed; most in-class modeling occurred at the beginning of implementation of SFA (i.e., before the Reading First grant implementation). The full-time coach had a dual role at Jacolyn Elementary School; she was the Reading First coach and the SFA facilitator. The full-time coach conducted visitations, similar to walk-throughs, at any time. The teachers met bi-monthly for grade level meetings, which included reviewing student data, discussing information on SFA, distributing administrative data, or any topic deemed necessary by the group. A list of the dates and topics discussed at the grade level meetings was obtained from the full-time coach. This list is represented in Appendices E and F.

### **3.2.7 The Participants**

The participants in the study were the principal, the full-time coach, the part-time coach, and seven teachers. Eight participants were women; one teacher and the principal were male.

The itinerant reading coach’s job description, provided by the part-time reading coach, stated that the responsibilities of a reading coach were to provide a supportive environment for

teachers and work collegially with the principal and the SFA facilitator. The job description also identified specific criteria for the reading coach position; these included: knowledge of the core reading program and PA standards and assessments, provide job-embedded professional development, participate in monthly regional meetings, provide Reading First documentation, align current reading program to PA standards, provide in-class modeling for teachers, and provide teachers with assistance when preparing students for the Pennsylvania State Standards Assessment. Also, reading coaches must follow the principal's leadership (personal communication, September 30, 2007).

The full-time reading coach reported that her highest level of education was a doctoral degree and that she was a reading coach for the last two years. She also indicated that she was responsible for one school, grade levels 1–3, and 19 teachers (personal communication, September 30, 2007). Along with the Reading First coaching responsibilities, the full-time coach also was the SFA facilitator at Jacolyn Elementary School. The responsibilities of this dual role included working with teachers to implement the SFA program and the Reading First grant, managing materials for the SFA program and Reading First grant (i.e., assessment data and instructional materials), leading bi-monthly grade level meetings, conducting walk-throughs in teachers' classrooms during reading instruction, working with individual teachers to provide reading instruction that aligned with the SFA program and the Reading First grant at the classroom level, and performing administrative tasks that accompanied the SFA program and the Reading First grant.

The part-time reading coach indicated that she completed her master's degree and was also considered a full-time coach; however, her duties were split between three elementary schools (i.e., she was part-time at Jacolyn Elementary School) (personal communication,

September 30, 2007). This coach reported that she worked with grades 1–3 and had been in the role of a reading coach for the past five years (personal communication, September 30, 2007). The part-time coach indicated that her responsibilities included working with third grade homeroom teachers in the areas of test preparation and writing instruction; she also provided in-class modeling to work with teachers in these areas.

All grade levels at Jacolyn Elementary School were represented in the sample, including special education (i.e., at least one teacher from each grade level volunteered to participate in this study). The volunteer teachers all taught different levels of the *Wings* materials (i.e., the range of reading grade levels taught was from grades 2–4) of the SFA program. Six of the seven teachers taught at Jacolyn Elementary School since the onset of the grant implementation. One teacher at this school was employed at Jacolyn Elementary School for the school years 2005–2006 and 2006–2007. This would indicate that since this particular teacher was only at the school for the past two years, the teacher did not receive any of the professional development that occurred during the initial implementation of the SFA program. The teachers’ overall experience ranged from 4–10 years and ranged 3–10 years at their current grade level. (Table 4)

**Table 4 Teachers' Demographic Information**

	Years of Experience	Years Teaching This Grade Level	Homeroom Grade Level	SFA Wings Reading Level During Reading Instruction
Teacher 1	10	10	Special Education	2.2
Teacher 2	6	3	3	2.1
Teacher 3	8	4	3	3.1
Teacher 4	4	4	3	4.1

Teacher 5	9	3	2	2.1
Teacher 6	10	9	3	2.2
Teacher 7	10	10	1	3.1

### 3.3 METHODS

Data collection sources are discussed below. Primary sources included a list provided by the full-time coach of the professional development sessions from 2006–2007, interviews of teachers, coaches, and the principal, and classroom observations in selected classrooms. Interviews were conducted with the principal, full-time coach, and part-time coach. Teachers participated voluntarily in a short pre-observation interview, classroom observation, and a post-observation interview. Secondary sources of data previously collected by Pennsylvania’s Reading First Evaluation Team included information from the Annual Progress Reports (i.e., years 2004–2005, 2005–2006, and 2006–2007). Permission for this investigation was approved by the IRB. In addition, letters were distributed to the teachers, coaches, and principal explaining the study (see Appendix C). Each data collection procedure is discussed below.

#### 3.3.1 Interviews

Interviews were conducted with teachers, coaches, and the principal in order to provide a better understanding of what occurred in the professional development sessions of this reform effort school. The interviews consisted of open-ended questions, which minimized errors (Fontana &

Frey, 1994; Wengraf, 2001) and provided information that supported data collected from other sources. Although the interviews were semi-structured, the interviews occurred in a social environment (i.e., Jacolyn Elementary School) and therefore reflected information that often was not predetermined (Fontana & Frey, 1994). Such questions provided a more in-depth understanding of the impact of professional development.

### **3.3.1.1 Teacher Interviews**

First, teachers participated in a short pre-observation interview (see Appendix D). The pre-observation interview took approximately 15 minutes to complete and was audio-taped. The purpose of this pre-observation interview was to provide the teachers with an opportunity to discuss the professional development activities they were involved in; also, they were asked to describe what would occur in the observation lesson. A classroom observation time also was scheduled during the pre-interview. The teachers were asked to discuss the professional development activities that they had participated in at the time of data collection (i.e., prior to March of the 2006–2007 school year). If teachers were not able to recall the professional development activities, a list of the professional development opportunities was provided (see Appendix E). During the pre-interview, the researcher gained a deeper understanding of the teacher's participation in professional development and the focus of the observation lesson.

Second, following the classroom observation, each observed teacher participated in a post-interview (see Appendix E). The purpose of the post-interview was to discuss the observed lesson and the impact of professional development as viewed by the teacher. This audiotaped interview took about 40 minutes. The post-observation interview had three main categories: lesson focus, professional development in the school, and general professional development. Five questions pertained to the lesson focus of the observation; they included: What was the

main focus of your lesson? Tell me again, where did you learn to do this, and in what ways was this activity successful?

The teachers then were asked about specific characteristics of the professional development activity. For example: “Let’s go back to the professional development that prepared you for this lesson and discuss the ... activity in which you were involved that had a large impact on your teaching practices.” Teachers then discussed professional development in general terms. Examples of the questions asked in this category included but were not limited to: How does this new information from the professional development activity fit into what you already know about reading? How do you incorporate this newly learned information into your teaching, and how does this new information fit into what was currently taught at other grade levels?

### **3.3.1.2 Coaches’ Interviews**

The goal of the coaches’ interviews was to gain more in-depth information on the coaches’ perspectives about the effectiveness of the professional development sessions in this school (see Appendix D). These interviews were done to obtain the coaches’ perceptions on the most influential professional development and how the professional development affected teachers’ instruction. Each coach interview took about 30 minutes to complete and was audiotaped.

The coaches’ interviews were similar to the teachers’ in order to capture different perspectives on the professional development activities in this school. The interviews consisted of four questions. Additional prompts were used with these questions for clarification purposes. Examples of questions on the coaches’ interview were: Please identify and describe one professional development activity that your teachers were involved in that you perceive as having a large impact on their practices. And overall, how do you think teachers’ knowledge of



content, pedagogy, and your school district's curriculum have been influenced by the professional development that has been provided from September to March of this year?

### **3.3.1.3 Principal Interview**

The purpose of the principal's interview was to gain perspective on the professional development activities from an administrator's point of view (see Appendix D). The principal's interview started in a similar manner to both the teachers' and coaches' interviews. This interview consisted of four questions, some having additional prompts. The interview with the principal was completed in 30 minutes and was audiotaped. The principal's interview consisted of questions such as the following: Here is a list of the professional development activities that have been offered in your school. Which of these have you attended? Have you led any of these? Any others? This school is improving; which one of these really had an impact on teachers' instruction?

### **3.3.2 Participant Observation**

The researcher expected to observe at least once in a classroom at each grade level. This observation research occurred in the natural setting, and the environment was not manipulated (Adler & Adler, 1994). The research methodology of observation was used to substantiate other data sources (Adler & Adler, 1994).

The researcher in this case study acted as an *observer-as-participant*. Records of observations were made in the form of field notes. These notes were typed, analyzed, and triangulated with other sources of data to inform conclusions. Rigor was added to the observational data because of the triangulation with other forms of data (Adler & Adler, 1994).

The objectives of the observations were (a) to determine to what extent effective instruction occurred, and (b) to determine which aspects of the professional development received were incorporated into teachers' instructional practices. In other words, the observations assisted the researcher in getting a better idea of whether the information provided via professional development was applied to classroom instruction. The researcher looked for specific topics and elements of the professional development activities that the teachers described during the pre- and post-observation interviews. Further, the researcher determined how closely the classroom instruction aligned with the SFA framework. Once the observations occurred, the researcher analyzed the data using a template that consisted of elements of the SFA program, the National Reading Panel findings (2000) (NRP), and the National Council of Teachers' of English (2004) (NCTE) beliefs on writing instruction (see Table 5).

The table was developed by aligning the elements of reading instruction specified by the SFA program, the NRP report, and the NCTE statement. Next codes were given to each of the elements. These codes were then used to analyze the data. For example, a portion of Teacher 1's classroom observation was coded as (DI: SFA, NRP) because she introduced the vocabulary words in the story and provided simple definitions that the students would understand (e.g. "The word *imitated* means to copy something."). This was done to better understand how teachers' instruction aligned with effective reading instruction, teachers' fidelity to the core program, and most importantly, to observe what elements of professional development teachers transferred to classroom reading instruction.

Field notes were taken during the observations. The researcher used a T-Chart format to record five-minute intervals of teacher and student activities. This format allowed for the focus to be on *meaning* rather than on *structure* of the field notes. The information from the field notes

addressed the content focus of the lesson, the pedagogy used and the curriculum (i.e., the SFA program or non-SFA). The observations were 45 minutes in length and occurred either during the first or second half of the mandated 90-minute reading block.

**Table 5 Template of Elements for Analyzing Lessons for Effective Reading Instruction**

<b>Areas of Reading</b>	<b>Description</b>	<b>SFA</b>	<b>NRP</b>	<b>NCTE</b>
<b>Comprehension</b>	Monitoring comprehension (MC)	X	X	
	Story maps (SM)	X	X	
	Questions/answers (explicit and implicit) (AQ)	X	X	
	Story elements (SE)	X	X	
	Cooperative learning (CL)	X	X	
	Student generated questions (SGQ)		X	
	Relate to prior knowledge (PR)		X	
<b>Vocabulary</b>	Direct instruction (DI)	X	X	
	Indirect instruction (IDI)	X	X	
<b>Fluency</b>	Teacher modeling (TM)	X	X	
	Partner reading (PR)	X	X	
	Repeated readings (RR)	X	X	
	Students grouped according to reading level (RL)	X		
	Work towards a target number of words correct per minute (TW)	X		
	Use rubric to monitor fluent reading (FR)	X		

**Table 5 Template of Elements for Analyzing Lessons for Effective Reading Instruction**

<b>Writing</b>	Grade 2: written responses to text questions; abbreviated writing process used; student partners provide feedback and teacher prompts, monitors, and reinforces ideas and skills while students write. (GR2)	X	X
	Grades 3–6: focus on writing process in a cooperative setting; prompts, scoring guides, and graphic organizers provided. (GR3-6)	X	X
	multiple purposes for writing (MP)		X
	conventions must be addressed (WC)		X
	related to reading and talk (RT)		X
	embedded in social relationships (SR)		X
	incorporated different modalities and technologies (DMT)		X
	assessment is complex, informed, and subjective (WA)		X
	tool for thinking (TT)		X

### **3.3.3 Secondary Data**

As a form of secondary data, this case study examined documents about the school. Secondary data provided information on professional development opportunities occurring from the onset of the Reading First Initiative. The main reason for using secondary data was to support the primary sources without influencing the setting of the study (Hatch, 2002). The secondary data source included three years of the school's Annual Progress Report (2004–2005, 2005–2006, and 2006–2007).

As a part of Reading First, Jacolyn Elementary School was required to submit a yearly progress report. Jacolyn Elementary School submitted this report for three consecutive school years, 2004–2005, 2005–2006, and 2006–2007. This self-report form asked various questions regarding school activities; this case study focused on the information provided in the report that was pertinent to professional development.

Triangulating all of the data sources made a stronger case for identifying features of professional development found in the school and discussing the effectiveness of the professional development. Once themes were identified, preliminary links were made among the professional development sessions, teacher practices, and student achievement.

## **3.4 PROCEDURES AND PROPOSED TIMELINE**

The following was the timeline for data collection (Table 6).

**Table 6 Data Collection Timeframe**

	SY	SY	April 2007	April 2007	April 2007
	2004-2005	2005-2006	Week 1	Week 2	Week 3
Progress Report	X	X			
Observation Protocol	X	X			
Field Notes/ Observation			X	X	X
Teacher Interviews			X	X	X
Coach Interviews			X	X	
Principal Interview				X	

### 3.5 VALIDITY/RELIABILITY

It was necessary to consider the validity and reliability of the methodologies used in the data collection. As the data were continually reviewed and analyzed, answers to the research questions began to emerge from the multiple forms of data collection.

Yin (1993) expressed the need to create data collection designs with construct validity, internal and external validity, and reliability. Construct validity was accounted for by using multiple sources of data to triangulate the results. The multiple sources of data in this case study were analyzed and reflected similar responses to validate the data from each source. Consistency of results adds to the depth and validity of the findings (Adler & Adler, 1994). In research, internal validity is associated most frequently with causal relationships (Trochim, 2006). This

case study examined the casual relationships between effective professional development, teacher instruction, and student achievement. The external validity was strengthened from the multiple sources of data. The multiple sources helped to address the generalizability of the conclusions described in this case study (Trochim, 2006). Given the difficulty of generalizing from case study research, there was a need for the multiple data sources to support the findings.

Reliability was established to validate the findings within the data sources. Themes were used to code the teachers' pre- and post-observation interviews, the coaches' interviews, the principal's interview, and the observational field notes. Reliability was achieved through the creations of case study themes (Yin, 1993). The research team, a colleague with a Ph.D in reading education, and two colleagues with M.Eds in reading education used the themes to code the multiple sources of data. Definitions for these themes were created and discussed in order to have agreement among the research team. The team members were trained in the theme protocols and agreement was established with at least 80 percent reliability for each research question's analysis. This reliability percentage was established though the number of agreements/the total number of agreements and disagreements (Miles & Huberman, 1994). For example, 80 codes agreed upon/90 total codes established 88.9 percent reliability.

### **3.6 RESEARCHER'S ROLE**

The researcher needed to have a deep understanding of the research questions, the methodologies, and the data analysis. The role of this qualitative researcher was to listen, understand, and analyze the data in a comprehensive approach, thus allowing others to fully grasp the investigated setting (Piantanida & Garman, 1999). The researcher in this case study



was a member of the Reading First External Evaluation Team for three consecutive years, which provided her with an understanding of Reading First in Pennsylvania, the pertinent questions of the study, the multiple forms of data collection, and quantitative and qualitative data analysis.

During this time, the researcher participated in monthly team meetings and the development and analysis of questionnaire and interview protocols for evaluation through the External Team, and was trained in the observation protocol used by the team. The researcher's involvement with the Reading First grant provided the opportunity to examine secondary data collected by the team and to have access to information to aid in the school selection process.

## **4.0 ANALYSIS OF DATA**

This chapter discusses results of the study about professional development opportunities at Jacolyn Elementary School during the 2006–2007 school year and the perceived impact these professional development sessions had on teachers' instruction. Seven teachers, one full-time reading coach, one part-time reading coach, and the principal from Jacolyn Elementary School volunteered to participate in this study. Data used to address each research question include information from the Annual Progress Report(s), a list of professional development sessions at Jacolyn Elementary School provided by the full-time coach, and interviews with the principal, full-time coach, and part-time coach. Teachers also were involved in pre- and post-observation interviews and a 45-minute classroom observation. An overview of the data analyses procedures for each research question is presented. The findings for each question, as well as a summary of each research question, are provided.

#### **4.1 QUESTION 1: WHAT WAS THE NATURE OF PROFESSIONAL DEVELOPMENT IN A READING FIRST SCHOOL IN WHICH READING ACHIEVEMENT IMPROVED, AND HOW WERE PROFESSIONAL DEVELOPMENT ACTIVITIES MADE AVAILABLE TO TEACHERS?**

To answer research question 1, the following procedures were used. The two sources of data were the Annual Progress Report (i.e., years 2004–2005, 2005–2006, and 2006–2007) collected by External Evaluation Team and the list generated by the full-time reading coach at the school. The Annual Progress Report (2006–2007) was analyzed to determine professional development opportunities at the school, the duration of each session, and the presenter. This information was analyzed for each of the three years of Jacolyn Elementary School's participation in the Reading First grant to determine the progression of professional development across years. To confirm and cross-check the formal professional development offered, the full-time coach at the school was interviewed and asked to provide a list of professional development for the 2006–2007 school year.

In Table 7, the professional development sessions as described in the Annual Progress Report (2006–2007) are identified, including the specific time that the professional development was offered, the number of sessions, hours, presenter, and topic. In addition, each session was coded as substantive (i.e., *discussing* valuable information to support teachers with student assessment data analysis, pedagogical techniques, or furthering teachers' content knowledge) or logistical (i.e., *distributing* basic administrative information, such as assessment results, grade report forms, or materials). Once the codes were established, two raters coded 20 percent of the total number of professional development opportunities (i.e., the Annual Progress Report and the list from the full-time coach) and 89 percent inter-rater reliability was reached.

**Table 7 Annual Progress Report (2006-2007) Professional Development Opportunities**

Month	Sessions	Hours	Presenter	Topic	S or L
Sept.	0	0			
Oct.	1	2	Other presenter Reading First Technical Assistant)	Early intervention development	S
Nov.	1	2	Other presenter (Reading First Technical Assistant)	Early intervention strategies	S
Dec.	0	0			
Jan.	2	3.5	Other presenter – District and William Sanders (author of the <i>Chicken Soup for the Soul</i> collection)	<i>Excellent 11 Qualities for Teachers and Parents</i> (2004) and Student Motivation	S S
Feb.	0	0			
Mar.	0	0			
Apr.	2	2	Reading First Coach	New reading group lists and teachers completed forms	L (both sessions)
May	0	0			
Total	6	9.5	3 – Other presenter  1 – Reading First Coach		

\*# of Sessions

\*\*# of Hours

\*\*\*Substantive (S) and Logistical (L)

The information collected from the Annual Progress Report indicated that the faculty at Jacolyn Elementary School had six formal professional development opportunities totaling 9.5 hours of formal professional development. According to the Annual Progress Report and the information collected from the conversations with the full-time coach, faculty at Jacolyn Elementary School received substantive professional development during October, November, and January. The Reading First Technical Assistant and a representative from Intermediate Unit 4 gave presentations in October and November (i.e., Early Intervention Development and Early Intervention Strategies). The second session built on the information from the previous session; therefore, there was carryover between the topics of these two professional development opportunities.

According to the Annual Progress Report, in January, teachers from other primary centers in the school district provided a substantive session for all the primary center faculty members on the qualities that teachers and parents should possess, according to the *Excellent 11 Qualities for Teachers and Parents* (Clark, 2004). The full-time Reading First coach presented at two professional development sessions in April. These meetings were defined as “logistical”; the full-time coach discussed the lists for the new reading groups and teachers completed SFA paperwork.

The data provided by the Annual Progress Report was broad and did not provide a clear picture of all the professional development opportunities at Jacolyn Elementary School. For example, the Annual Progress Report specifically asked for only formal sessions that focused on literacy, and stated explicitly to *not* include grade level meetings, study groups, etc. Also, the format of the report did not allow Jacolyn Elementary School to list its sessions by date or include any information about the sessions. Moreover, the nature of the formal professional

development sessions reported in the Annual Progress Report was not cumulative, building upon a common theme.

In order to determine whether there had been professional development in previous years that might have influenced teacher practices, Annual Progress Report data from 2004–2005 and 2005–2006 were analyzed. In the 2004–2005 school year, the Annual Progress Report indicated that teachers were involved with 29 hours of formal professional development (Table 8). During 2005–2006, teachers participated in 30 hours of formal professional development (Table 9) and, as mentioned above, in 2006–2007, only 9.5 hours of formal professional development was available to teachers at Jacolyn Elementary School. All of the teachers who participated in this study had been employed at Jacolyn Elementary School in 2005–2006 and six teachers also were part of the faculty during the 2004–2005 school year (i.e., only one teacher did not receive the 2004–2005 professional development opportunities at Jacolyn Elementary School). Since previous years offered more professional development opportunities, teachers spent more time in professional development during the first two years of grant implementation and were exposed to more topics through a variety of presenters.

According to the Annual Progress Reports, teachers at Jacolyn Elementary School participated in more professional development during the first two years of the grant (e.g., 2004–2005 and 2005–2006) than in the third year of grant implementation. In fact, teachers participated in 19.5 more hours in formal professional development in 2004–2005 than in 2006–2007, and 20.5 more hours in formal professional development in 2005–2006 than in 2006–2007.

**Table 8 Annual Progress Report Data from 2004-2005**

Month	Total # of sessions	Total # of hours	Presenter(s)	Topic
Sept.	0	0		
Oct.	2	9	Reading First Coach; Reading First Technical Assistant	4-Square Writing; Data Analysis using DIBELS
Nov.	2	9	University Representative	Vocabulary Instruction
Dec.	0	0		
Jan.	0	0		
Feb.	2	2	University Representative; Reading Specialist; Private Consultant	Teaming; SFA Training Groups; Networking Workshops
Mar.	0	0		
Apr.	2	6	Private Consultant	SFA Experienced Site Conference
May	1	3	Reading First Coach	4-Square Writing
Total	18	29		

**Table 9 Annual Progress Report Data from 2005-2006**

Session #	Total # of hours	Presenter(s)	Topic
1	6	Other Presenter	Reading Instruction
2	3	Reading First Coach	Reading First
3	3	Reading First Coach	Assessment
4	3	Other Presenter	Differentiated Instruction
5	3	Other Presenter	Differentiated Instruction
6	6	Other Presenter	Reading Instruction
7	6	Reading First Technical Assistant	Reading First and Differentiated Instruction
Total	30		

The second approach to answering this question was to interview the coach to get a much more complete picture of the professional development opportunities at Jacolyn Elementary School. This list included the more formal sessions described above and professional development that occurred during the bimonthly grade level meetings. These sessions are described below and categorized as either substantive or logistical (additional information is available in Appendix F and G). The topics within each session then were classified into nine categories: comprehension, vocabulary, fluency, writing, assessment, PSSA preparation, Reading First grant information, the SFA program, and other (i.e., mostly administrative record keeping).

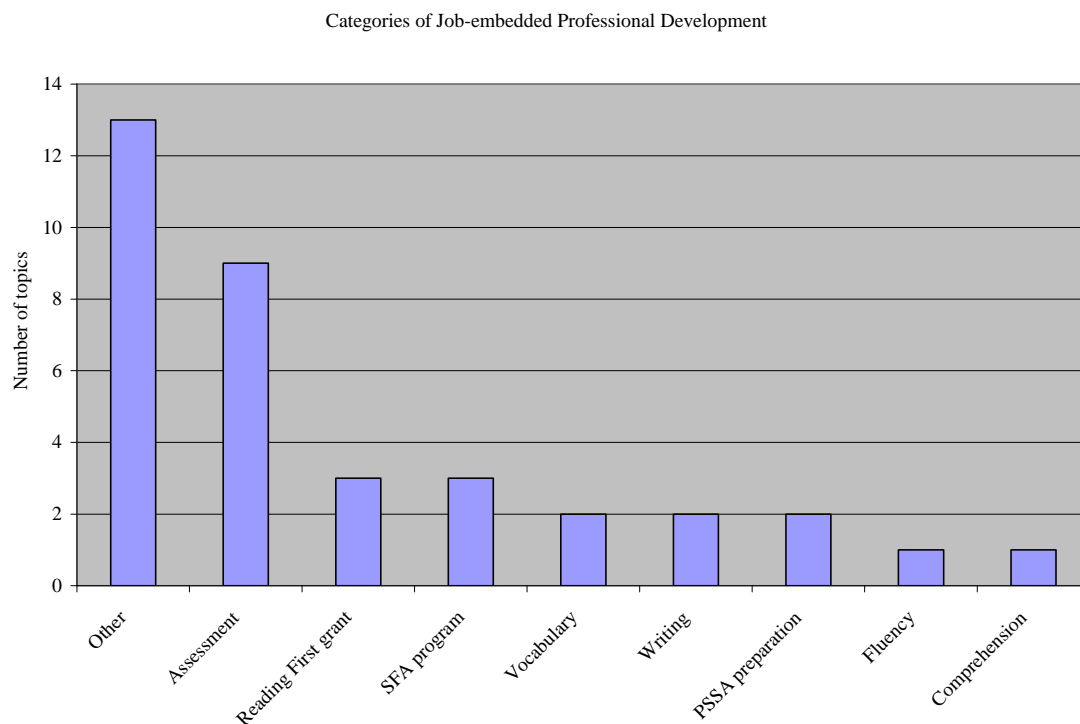


The faculty at Jacolyn Elementary School participated in thirty-minute bimonthly grade level meetings. At the time of data collection (i.e., February) there were a total of fourteen grade level meetings. The meetings provided an opportunity for the faculty to meet and complete logistical tasks, receive assessment results (e.g., PSSA results), review calendars and schedules for upcoming events (e.g., coach calendar or open house), and receive materials (e.g., student copies for a new vocabulary program). These meetings also provided substantive information. For example, teachers were able to discuss instruction (e.g., meet with SFA consultant). Grade level meetings therefore often included many topics, covering a broad spectrum of information rather than covering a topic deeply; also, similar to the formal professional development sessions, the topics discussed at the grade level meetings were not cumulative. Although the full-time coach facilitated all of the grade level meetings, teachers did not indicate during their interviews that the full-time coach was a source of professional development. The teachers often discussed specific grade level meetings at which there was an influential presenter (i.e. when the SFA consultant attended a meeting).

Appendix F summarizes the list of grade level meetings for the 2006–2007 school year provided by the full-time coach, and Appendix G provides a more detailed explanation of each grade level meeting.

According to the full-time coach's list, 33 topics were discussed during the grade level meetings at the time of data collection (i.e., February). These topics included: comprehension, vocabulary, fluency, writing, assessment, PSSA preparation, Reading First grant information, the SFA program, and other (i.e., mostly administrative record keeping).

Some of the topics were classified in more than one category, specifically when a content area was discussed using assessment results. For example, the 4-Sight Essay Scoring was coded as writing and assessment. The topics discussed most frequently during the grade level meetings were administrative tasks (i.e. other category, 39.4 percent) and assessment (27.3 percent). The Reading First grant and the SFA program each were discussed three times (9.1 percent ) during the grade level meetings, and PSSA preparation, vocabulary, and writing were each discussed twice (6.1 percent) at the time of data collection. Both fluency and comprehension were discussed one time each (3 percent) during the grade level meetings (Figure 2).



**Figure 2 Topics Discussed at Grade Level Meetings**

## **4.2 SUMMARY OF QUESTION 1**

Generally, the nature of the professional development at Jacolyn Elementary School seemed to lack coherence. There was not a common theme that connected the formal professional development sessions to one another or consistently connected information to the bi-monthly grade level meetings. Although, overall professional development sessions did address various components associated with the Reading First grant and general knowledge of reading instruction. For example, vocabulary, fluency, and comprehension were all discussed at least once during grade level meetings, the SFA program which includes elements of reading instruction that align with the Reading First grant, assessment results were discussed as per the guidelines of the Reading First grant, and specifics of the grant were discussed. In other words, the Reading First grant may have been the theme that linked all of the professional development opportunities at Jacolyn Elementary School.

Professional development was made available to the teachers at Jacolyn Elementary School through formal professional development sessions and grade level meetings. The topics discussed at the formal opportunities and grade level meetings provided teachers with professional development; however, reading was not always the topic during these professional development opportunities.

The data sources indicated that the teachers at Jacolyn Elementary School spent a decreasing amount of time in formal professional development over the three-year grant implementation period (i.e., 29 hours in 2004–2005, 20 hours in 2005–2006, and 9.5 hours in 2006–2007). Also, during the 2006–2007 school year, teachers participated in 14 bimonthly grade level meetings; however, the majority of these meetings provided logistical information (i.e., 64 percent of the grade level meetings discussed logistical information).

Based on the information provided in the Annual Progress Reports for three consecutive years, and the list of grade level meetings from the 2006–2007 school year, teachers at Jacolyn Elementary School did not participate in high quality professional development that had a focus and revolved around a specific theme. There was little coherence among the professional development sessions and the amount of time teachers spent in formal professional development. The focus of the bimonthly grade level meetings frequently was logistical and covered many topics rather than deeply examining a specific topic in reading.

#### **4.3 QUESTION 2: WHAT FEATURES OF THE PROFESSIONAL DEVELOPMENT ACTIVITY ALIGNED WITH WHAT IS KNOWN ABOUT EFFECTIVE PROFESSIONAL DEVELOPMENT, AND WHAT WERE THE SIMILARITIES AND DIFFERENCES IN PERCEPTIONS OF THE TEACHERS, COACHES, AND PRINCIPAL ABOUT THE PARTICIPATION AND CHARACTERISTICS OF PROFESSIONAL DEVELOPMENT?**

Participants were asked to identify one professional development session that impacted their instruction. None of the participants were able to identify a professional development session that impacted their instruction without consulting the list of professional development offered during the 2006–2007 school year. Once the participants reviewed the list and responded to questions about the specific professional development session, the responses from the participants were aligned with Desimone et al.'s (2002) framework of characteristics of effective professional development. In the sections below, each professional development session identified was compared to Desimone et al.'s (2002) framework (Table 1 in Chapter 2). Then the similarities and differences in responses of participants were analyzed.

To answer research question 2, the following procedures were used. First, each activity identified by a respondent during a post-observation interview was compared to Desimone et al.'s (2002) framework (see Table 1 in Chapter 2) in which characteristics of effective professional development are identified. These characteristics included the following broad categories: structural and core. Each of these categories was divided further into specific dimensions as identified by Desimone, et al. (2002). Structure includes session type (e.g., reform or traditional), duration (e.g., contact hours and length of time), and collective participation (e.g., who's involved). Core includes active learning (e.g., uses student data or provides feedback); coherence (e.g., relates to personal goals, district, or state standards); and content. In other words, each of the specific professional development activities selected by a participant was analyzed and then the participants' answers were aligned with Desimone et al.'s (2002) framework.

The responses of the participants were coded either as "yes" (i.e., the characteristic was evident) or "no" (i.e., the characteristic was not evident in the professional development) for each of the dimensions. The template allowed the researcher to analyze and synthesize characteristics of the professional development across participants. Once Desimone et al.'s characteristics were applied to the data, the researcher indicated whether the professional development session identified by the participant was substantive or logistical. In order to ensure accuracy, two raters read and coded 20 percent of participants' answers to the interview questions. The coding template consisted of the characteristics of effective professional development provided by Desimone, et al., 2002, and 83 percent inter-rater reliability was established.

## **4.4 STRUCTURAL CHARACTERISTICS**

### **4.4.1 Session Type**

Overall the teachers' responses at Jacolyn Elementary School indicated that professional development opportunities that they found significant were conducted in reform type sessions. Specifically, when the teachers were asked to identify a professional development opportunity that impacted their teaching, five teachers (71.4 percent) referred to a reform type session (i.e., four of the teachers stated grade level meetings and one teacher discussed a study group, e.g., on-line course). The remaining two teachers (28.6 percent) identified traditional type sessions (e.g., graduate courses). The principal and full-time coach both identified a whole school in-service, traditional format session. The part-time reading coach identified individual classroom modeling, a reform type session. None of the teachers referred to the sessions identified by the principal or the coaches.

### **4.4.2 Duration**

Desimone et al. (2002) defined duration as the number of contact hours, and whether the topic was revisited over multiple sessions. Each of the study's respondents described one particular professional development opportunity and stated the total amount of time he/she spent in the session. Participants also stated if the session was conducted only once or continued over time.

Although the principal and full-time coach both identified the same professional development session as a single session, the principal indicated this session took three hours and

the full-time reading coach indicated that this session was a full day activity (i.e., six hours). This discrepancy was not able to be explained.

The part-time coach stated that because of her schedule (i.e., six-day rotation), she was able to model in third grade classrooms for the reading block (i.e., 90 minutes) almost every week. The teachers described a variety of professional development sessions with a range of time (Table 10).

**Table 10 Duration of Time**

<b>Participant</b>	<b>Length of Professional Development Session</b>	<b>Topic Occurred Over Multiple Sessions</b>
Principal	3 hours	N
Full-time coach	6 hours	N
Part-time coach	1.5 hours	Y
Teacher 1	3 hours	Y
Teacher 2	45 minutes	Y
Teacher 3	3 hours	Y
Teacher 4	30 minutes	N
Teacher 5	45 minutes	N
Teacher 6	30 minutes	N
Teacher 7	45 minutes	N

(Interviews, 2007)

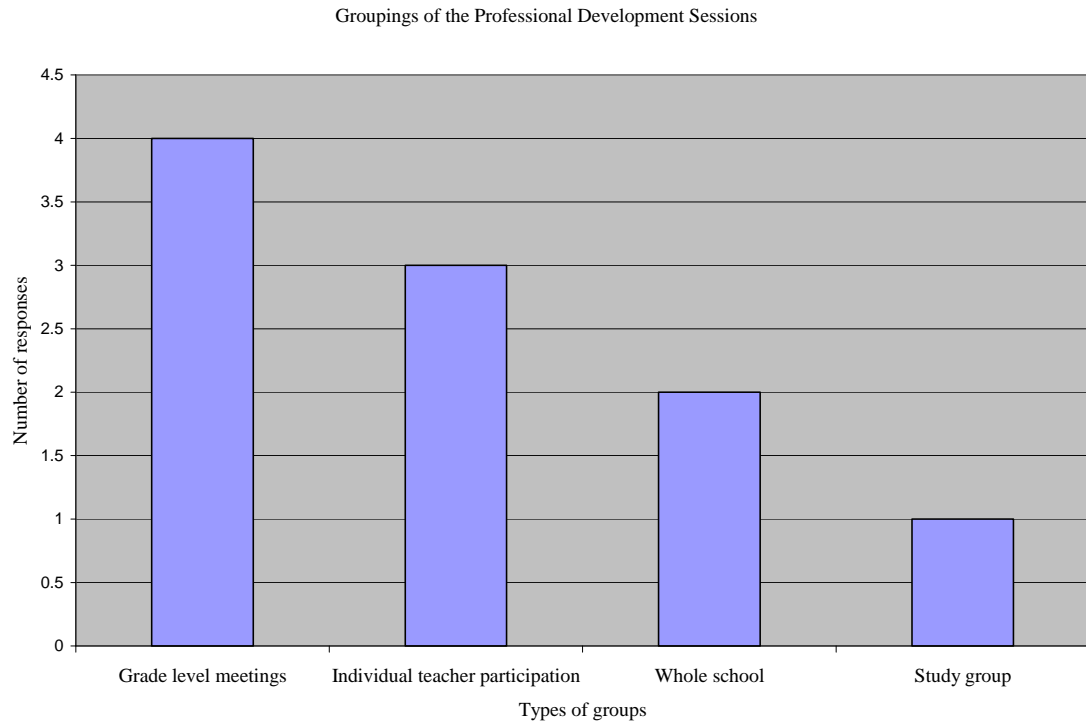
Two teachers said their professional development session took about 30 minutes, while three teachers stated the professional development sessions took 45 minutes. All of these teachers stated that these sessions occurred during bimonthly grade level meetings; however, the

specific topic they chose to discuss rarely occurred over multiple sessions. Two of the teachers stated their professional development sessions occurred for three hours weekly (e.g., graduate course).

#### **4.4.3 Collective Participation**

The professional development opportunity discussed by both the principal and full-time coach involved all faculty at the school. The part-time coach explained that she modeled writing for third grade teachers; therefore, she worked with only one grade level. Again, the teachers provided a variety of answers based upon the professional development session they had chosen. The majority of teachers (57 percent) responded that their professional development opportunity was conducted at the bimonthly grade level meetings. Two teachers identified participating individually in a graduate course, and one teacher discussed a study group setting, the on-line course. These data are represented in Figure 3.





**Figure 3 Groupings of the Professional Development Sessions**

## 4.5 CORE CHARACTERISTICS

### 4.5.1 Active learning

The teachers agreed unanimously that the sessions they selected included active learning. The teacher interviewees often referred to the sessions as being “practical.” Teacher 5 (Interview, April 3, 2007) stated, “[I] was able to use it.” In order to more fully understand teachers’ active learning, the participants were asked if they used student data or received feedback on their teaching during the session. Teacher 4 (Interview, April 2, 2007) reiterated the idea of

practicality when she said, “We weren’t receiving feedback on our teaching but we were using actual student data.”

When the principal was asked if the professional development activity used student data, he indicated that teachers did use student data during this session. In contrast, the full-time coach who identified the same session stated that teachers were not able to use data from *their* students during this professional development session but did use student work (i.e., examples of student work provided by the Handwriting Without Tears consultants). Therefore, this was an active experience for teachers but not one in which they used data from their own students.

The part-time coach said that teachers did not use student data or receive feedback on their teaching when she modeled in their classrooms. All of the teachers responded that they used authentic student data (i.e., data from their students) during the professional development session that they identified. As Teacher 6 discussed her professional development opportunity she said, “Yes, it was actual student data. Yes, their own essays” (Interview, April 3, 2007).

In addition to using student data, two teachers stated they received feedback on their teaching. Teacher 1 said her classmates in her graduate course provided her with feedback on her instruction with a struggling reader, and Teacher 7 indicated that the SFA consultant provided feedback after her classroom walk-through.

#### **4.5.2 Coherence**

There was overwhelming agreement that the professional development sessions the participants chose to identify were congruent with their personal instructional goals and district and state standards. All of the participants perceived the professional development sessions as being aligned with their personal instructional goals or the instructional goals of the school’s teachers.

The participants also stated that the professional development opportunities in the 2006–2007 school year aligned with district and state standards.

Overall the participants agreed that the professional development activity encouraged communication among teachers beyond the professional development session itself. The principal and full-time coach both stated that discussion occurred among the teachers after the conclusion of the Handwriting Without Tears professional development session. The principal indicated that at first the teachers did not respond well to changing the handwriting program (i.e., this program did not coincide with the SFA program), but ultimately implemented the new program.

The part-time coach stated that she did not know if the teachers continued to communicate, or ever communicated, after her modeling. “I can’t speak to that because I am in and out of the building...” (Part-time coach, interview, April 3, 2007). All of the teachers agreed that they continued to discuss topics addressed in the grade level meetings. Teacher 4 (interview, April 2, 2007) responded, “Sure, sure. We would all maybe leave there and as we are walking, you know, just discuss it a little bit.”

#### **4.5.3 Content Focus**

Since the participants were asked to focus on a professional development session that had an impact on *their* own teaching or their teachers’ instruction, the content focus varied among the responses. The answers that participants provided regarding the content of the professional development sessions are described in Table 11. Responses varied, with the majority of teachers (e.g., four teachers) identifying the content of a professional development opportunity as one of the five main components of reading discussed in the National Reading Panel report (2000). Two

teachers described the professional development session's content focus as struggling readers, and one teacher identified the content focus as writing. The principal and full-time reading coach both identified the same professional development session, which focused on handwriting. The part-time coach selected classroom modeling with a focus on writing instruction.

**Table 11 Content Focus of the Identified Professional Development Sessions**

<b>Participant</b>	<b>Identified Professional Development Session</b>	<b>Content of Identified Professional Development</b>
Principal	Handwriting Without Tears	Handwriting
Full-time coach	Handwriting Without Tears	Handwriting
Part-time coach	In-class modeling	Writing
Teacher 1	Graduate course	Literacy plan, struggling readers
Teacher 2	On-line course	Independent reading, vocabulary, and fluency
Teacher 3	Graduate course	Struggling readers
Teacher 4	Grade level meetings	Vocabulary
Teacher 5	SFA consultant	Fluency
Teacher 6	4 Sight essay scoring	Writing
Teacher 7	SFA consultant	Comprehension

(Interviews, 2007)

Teacher 1 and Teacher 3 both identified the same graduate course in which they were currently enrolled. Teacher 1 stated the course content to be literacy programs and tutoring struggling readers.

We had to develop our own literacy plan. That was the main thing we had to do. We had to research and pick our own literacy program. That is, if I were a principal, what would I want to see in the district that I work in. And the tutoring

of a person who needs to improve his/her reading were the two major things we had to do.

(Interview, March 31, 2007)

Teacher 3 reiterated that the focus of the graduate course was the struggling reader.

“Struggling readers, of any type for whatever reason” (Teacher 3, interview, April 2, 2007).

According to Teacher 2, there were multiple content foci for the on-line course.

The second one [on-line course] is independent reading. I haven’t really gotten into it too much yet, but the first one [on-line course] was fluency and vocabulary. And what a difference having gone through that and teaching the kids’ literacy lab. And it has really shown me how to do things differently.

(Interview, March 31, 2007)

Teacher 4 identified a grade level meeting focusing on vocabulary as the most influential.

“Vocabulary: The idea of trying to get the students to go back in and find the answers, you know, to take the time to go back and to make sure they are right” (Teacher 4, interview, April 2, 2007).

Teachers 5 and 7 also selected grade level meetings; however, the content that had the most impact on their teaching was fluency and comprehension. Teacher 5 identified fluency as the topic, while Teacher 7 said she asked the SFA consultant about meaningful sentences (i.e., an SFA vocabulary activity). Again, grade level meetings were selected by Teacher 6. This teacher identified the grade level meeting with a writing focus.

## **4.6 SUMMARY OF QUESTION 2**

The responses of teachers as to an important professional development session for them were compared to Desimone et al.'s (2002) framework of effective characteristics of professional development. The following summary highlights the findings.

### **4.6.1 Structural Characteristics**

Only the part-time coach (i.e., classroom modeling) and one teacher (i.e., on-line course study group) selected professional development sessions that met all of the structural characteristics of effective professional development. Although the grade level meetings that teachers selected occurred in multiple sessions, the specific topic at these meetings was not discussed from meeting to meeting. The literacy leaders' responses did not align with any of the structural characteristics provided by Desimone et al. (2002) for effective professional development (e.g., session type, duration, and collective participation). Two teachers (i.e., 20 percent of the participants) selected graduate courses as influential professional development. According to Desimone et al. (2002), the only characteristic that the described graduate coursework would align with was duration; however, this coursework did have characteristics of a reform type session. For example the teachers stated that the graduate coursework provided them opportunities for collegial dialogue (e.g., collective participation) and incorporated authentic learning opportunities (e.g., active learning).

#### 4.6.2 Core Characteristics

All of the professional development sessions identified by participants could be described as including active learning and coherence for participants (Desimone et al., 2002). Participant responses about the content characteristics varied. Although most of the professional development sessions had different content foci, all of the participants identified professional development opportunities that provided substantive information. Teachers' responses indicated that information that was provided in these substantive professional development sessions was implemented into their classroom instruction (i.e., the professional development session impacted their teaching). Table 12 represents the participants' responses about the characteristics of effective professional development. The following information is applicable to Table 12:

\* A *Grade Level Meeting* is designated by GLM; \*\**Gradual Release of Responsibility* is designated by GRRM; \*\*\* Substantive (S) and Logistical (L).

Overall, all of the participants identified professional development sessions that aligned with some of the characteristics of effective professional development. Characteristics of effective professional development were described most often when teachers discussed grade level meetings; however, these characteristics also were described by teachers when they discussed graduate coursework and the on-line course. For example, teachers in the graduate course and the teacher who participated in the on-line course were involved in professional development that occurred over multiple sessions and provided opportunities for active learning. Also, the part-time coach discussed a professional development session with all of the characteristics of effective professional development, yet none of the teachers identified her as a source of professional development that impacted their instruction.

**Table 12 Similarities and Differences in Perceptions of Effective Professional Development**

	Identified Professional Development Session	Reform	Multiple Sessions	Collective Participation	Active Learning	Coherence	Content	S or L
Prin.	District inservice	N	N	N	Y	Y	Handwriting.	S
FTC	District inservice	N	N	N	Y	Y	Handwriting	S
PTC	Modeling	Y	Y	Y	Y	Y	Writing	S
T. 1	Graduate Course	N	Y	N	Y	Y	Literacy program/ struggling readers	S
T. 2	On-line course	Y	Y	Y	Y	Y	GRRM/ fluency/ vocabulary	S
T. 3	Graduate Course	N	Y	N	Y	Y	Literacy program/ struggling readers	S
T. 4	GLM	Y	N	Y	Y	Y	Assessment Results	S
T. 5	GLM	Y	N	Y	Y	Y	Fluency	S
T. 6	GLM	Y	N	Y	Y	Y	Writing	S
T. 7	GLM	Y	N	Y	Y	Y	SFA program	S



Although the professional development that the participants described had characteristics of effective professional development, it is important to recognize that all of the participants needed a list of the professional development sessions to recall a session that they felt was influential. This may indicate that while the professional development sessions possessed *characteristics of effective* professional development, teachers still may not have categorized these sessions as *high quality* professional development.

The most influential professional development session for teachers identified by the literacy leaders was not selected by any of the teachers as influential professional development. The professional development session selected by the literacy leaders and the teachers all had some characteristics of effective professional development. The characteristic on which the literacy leaders and the teachers obviously disagreed was the content discussed in the professional development session; the literacy leaders chose a topic that was not selected by any of the teachers. Given the disconnect between the literacy leaders and teachers' perceptions about influential professional

#### **4.7 QUESTION 3: IN WHAT WAYS HAS PROFESSIONAL DEVELOPMENT IMPACTED TEACHERS' INSTRUCTION? IN OTHER WORDS, HOW HAS PROFESSIONAL DEVELOPMENT INFLUENCED TEACHERS' KNOWLEDGE OF CONTENT, PEDAGOGY, AND CURRICULUM IN READING?**

To answer research question 3—*What were teachers' perceptions about how their involvement in professional development activities changed/influenced their instructional practices?*—the qualitative data generated from the post-observation interviews of seven teachers

in the school were analyzed. Data from the interviews were transcribed and then read to determine teachers' perceptions of the professional development they received. First, the teachers' interview responses (i.e., utterances) were coded with initial overriding themes; these themes were categorized as either content, pedagogy, or curriculum (Shulman, 1986).

In addition to analyzing data using Shulman's (1986) work, two additional categories, teacher learning and teacher wisdom, were generated because of the nature of teacher responses. Teacher learning, or metacognition, was defined as a teacher's personal awareness and knowledge of his/her reading instruction based on reflection. The experience category was created because teacher responses indicated that often they used teacher wisdom (i.e., perceptions and experiences) to guide their reading instruction rather than the information that they received from professional development. Definitions for content, pedagogy, curriculum, teacher learning, and experience are provided in Table 13.

Second, specific responses were coded for themes about literacy and teaching literacy (i.e., knowledge of literacy, comprehension, differentiation, curricular sequence, metacognition, etc). Since these themes were coded per teacher utterance, some responses were given more than one code because of the nature of the teacher response. For example, the following response from Teacher 6 was coded as writing and assessment because in this response the teacher discussed the 4-Sight writing assessment and how all of the teachers learned to use writing rubric to evaluate student work. Teacher 6 indicated that this professional development allowed teachers to better understand statewide writing expectations.

**Table 13 Definitions used in the Coding**

Knowledge of Content	Understanding both the substantive and syntactic structure of content. Substantive was the way the facts are organized (i.e., reading instruction had multiple categories: comprehension, vocabulary, phonics, phonemic awareness, and fluency). Syntactic was what governs the information as true or false (i.e., evidence that supports claims in reading instruction; research states that repeated reading increases reading rate or fluency) (Shulman, 1986).
Knowledge of Pedagogy	The most effective ways (i.e., scientifically-based reading research) to teach reading and understanding what makes learning difficult or easy (Shulman, 1986).
Knowledge of Curriculum	Understanding vertical (e.g., grade level) curriculum and horizontal (e.g., content area) curriculum; variety of materials used to teach different curriculum; why certain curriculums are appropriate for certain instruction (Shulman, 1986).
Experience (i.e., Teacher Wisdom)	Based on teachers' personal experiences of teaching reading (i.e., it was not based on scientifically-based reading research).
Teacher Learning (i.e., Metacognition)	Teachers' metacognitive reflections that guided their reading instruction.

It [4-Sight] is their checking system to see how well we are doing or how we'll do on the PSSA; it is like a pretest. And what they did was they went over, they had a score and then they had another teacher score the same thing to see how, how far, you know, together we are on our scoring. Because it could be...it is subjective grading so they give a rubric of how to do that. So that was very helpful to keep us all on the same page.

(Interview, April 3, 2007)

A complete list of the codes and definitions is provided in Table 14. Finally, information from the coded teachers' interviews was related back to the professional development sessions that teachers participated in during the 2006–2007 school year.

The teacher interviews were read by two raters. First, one of the teacher interview transcripts was read through by both of the raters; then, the coding scheme was discussed by the two raters, and various codes were established. Once the majority of the themes were identified with this interview, the raters independently read two more teacher interviews, coded, and then discussed their work, clarifying coding. These two teacher transcripts were used to establish inter-rater reliability. There was 80 percent inter-rater reliability between the two coders. The primary researcher coded the remaining teacher interviews and made the connections between the teachers' responses and the professional development opportunities in the 2006–2007 school year.

**Table 14 Codes and Definitions for Emerging Themes**

<b>Categories</b>	<b>Code</b>	<b>Definition</b>
<b>Content</b>	Knowledge of literacy	Teachers' general understanding of literacy/literacy instruction.
	Comprehension (LC)	Teachers' discussion of understanding comprehension instruction.
	Fluency (LC)	Teachers' discussion of understanding fluency instruction.
	Vocabulary (LC)	Teachers' discussion of understanding vocabulary instruction.
	Writing (LC)	Teachers' discussion of understanding elements of writing instruction.
	Grammar (LC)	Teachers' discussion of teaching writing conventions.
	Assessment	Teachers' discussion of specific assessments (i.e., assessment guides the instruction).
	Motivation (LC)	Teachers' discussion of developing interest in reading or reading related activities.
	Reading and writing connection (LP)	Teachers' discussion of the links between reading and writing.
	Complexity of reading (LP)	Teachers' discussion about the many components or elements of reading instruction.
	Programs	Teachers' discussion of their understanding of specific published programs.

\* The grouping *Literacy Component* is designated by LC.

\*\* The grouping *Literacy Processes* is designated by LP.

**Table 14 Codes and Definitions for Emerging Themes**

<b>Categories</b>	<b>Code</b>	<b>Definition</b>
<b>Pedagogy</b>	Knowledge of learners (IS)	How teachers' understanding of student needs affected their instruction.
	Differentiation (IS)	Specific mention of changing student instruction based on needs of students
	Grouping	Teachers' references as to how students were grouped for instructional purposes.
	Scaffolding (IS)	Teachers' discussion about modeling or explaining expectations to students.
	Set instructional goals	Teachers' use of assessment data to plan instruction for the current year.
	Additional Resources	Teachers' use of tangible resources in addition to the scripted program.
<b>Curriculum</b>	SFA	The scripted program implemented at Jacolyn Elementary School.
	Sequence of curriculum	References to vertical curriculum (i.e., curriculum between grade levels).
	Impact of reading on all subjects	Influence reading has across student achievement.
<b>Teacher Learning</b>	Metacognition	"Awareness and knowledge of one's mental processes such that one can monitor, regulate, and direct theme to a desired end: self-mediation" (Harris & Hodges, 1995, p. 153).
<b>Experiences</b>	Teaching wisdom	Personal feelings, perceptions and experiences that guide reading instruction.

\*\*\* The grouping *Instructional Practices* is designated by IS.

The results for question 3 are represented in Tables 15, 16, 17, 18, and 19. In this analysis, 190 teachers' responses were coded. In the tables, the information is listed by the most frequently used codes (i.e., by total number of responses and percentage of responses); the analysis for each teacher's interview is also represented. Content was the most frequently coded subcategory (Table 15). Teachers' responses regarding curriculum can be found in Table 16. Teachers' responses about pedagogy are in Table 17. Table 18 provides information about teachers' experience and Table 19 provides information about teacher learning. Some of the categories were grouped together because of the nature of teachers' responses (i.e., writing, fluency, vocabulary, comprehension, grammar, and motivation all were grouped and discussed as *literacy components*).

Teacher responses were coded into five main categories: Content, Curriculum, Pedagogy, Experience, and Teacher Learning. Responses were coded as Content, 38.4 percent, as Curriculum, 23.7 percent, and as Pedagogy, 20 percent. Two additional categories were used to code each response: Experience, 12.6 percent and Teacher Learning, 4.7 percent.

It is important to recognize that the number of codes per category and per teacher varied; for example, 19 Content codes were assigned to Teacher 6's responses, while only 4 of Teacher 2's responses were. In other words, Teacher 6 emphasized Content more often during the interview than Teacher 2. This must be considered when discussing the Content category. The number of teachers represented in each category also is important to recognize when discussing each dimension of the categories. For example, the connection between reading and writing was coded only in a single

teacher's response (Teacher 1). So, although this was coded twice overall, the information only describes one teacher's perspective.

Overall, the responses were most frequently coded as Content related (38.4 percent). The use of assessments was coded frequently (11.6 percent). Assessment was a topic listed at grade level meetings led by the full-time reading coach (i.e., grade level meetings provided teachers with information about DIBELS, 4-Sight, and PSSA). This topic was presented during nine of the grade level meetings (64.3 percent). Teachers' responses also included thoughts about writing (5.8 percent), fluency (5.3 percent), motivation (3.2 percent), knowledge of literacy (2.6 percent) and comprehension (2.6 percent). These responses made sense because teachers had professional development opportunities that dealt with each of these areas.

Curriculum (23.7 percent) was the second most identified overriding theme, with SFA (14.7 percent) being most frequently discussed. Indeed, SFA was most frequently highlighted as an important source of information. Teachers also identified the impact that reading had across subject areas (i.e., horizontal curriculum, 5.3 percent) and discussed their knowledge of the sequence of reading instruction (i.e., vertical curriculum, 3.7 percent).

Teachers were mandated to use the scripted SFA program; therefore, it was not surprising that this was discussed most frequently. The teachers received information about the SFA program in their professional development throughout the 2006–2007 school year during the grade level meetings (see Table 16). The SFA program was discussed twice (14.3 percent) during the grade level meetings at the time of data collection. Moreover, teachers' knowledge of the vertical and horizontal curriculum often



was facilitated through the SFA program because the program was designed to address needs at different reading levels, and the strategies teachers used during reading instruction were able to be transferred to other content areas.

**Table 15 Content**

Code	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5	Teacher 6	Teacher 7	# of Responses	% of Responses
<b>Content (Total)</b>	<b>13</b>	<b>4</b>	<b>8</b>	<b>17</b>	<b>6</b>	<b>19</b>	<b>7</b>	<b>73</b>	<b>38.4</b>
Assessment	0	0	3	9	2	6	2	22	<b>11.6</b>
Writing (LC)	4	0	0	3	0	4	0	11	<b>5.8</b>
Fluency (LC)	1	2	0	3	3	0	1	10	<b>5.3</b>
Motivation (LC)	1	0	1	0	0	1	3	6	<b>3.2</b>
Knowledge of literacy	1	0	3	0	0	1	0	5	<b>2.6</b>
Comprehension (LC)	1	0	1	0	1	1	1	5	<b>2.6</b>
Vocabulary (LC)	0	2	0	2	0	1	0	5	<b>2.6</b>
Grammar (LC)	1	0	0	0	0	3	0	4	<b>2.1</b>
Reading and writing connection (LP)	2	0	0	0	0	0	0	2	<b>1.1</b>
Complexity of reading (LP)	0	0	0	0	0	1	0	1	<b>1.0</b>
Programs	2	0	0	0	0	1	0	3	<b>1.6</b>

**Table 16 Curriculum**

Code	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5	Teacher 6	Teacher 7	# of Responses	% of Responses
<b>Curriculum (Total)</b>	<b>1</b>	<b>7</b>	<b>5</b>	<b>3</b>	<b>10</b>	<b>8</b>	<b>11</b>	<b>45</b>	<b>23.7</b>
SFA	0	4	3	3	7	2	9	28	<b>14.7</b>
Impact reading has across all subjects	1	2	2	0	2	2	1	10	<b>5.3</b>
Sequence	0	1	0	0	1	4	1	7	<b>3.7</b>

Twenty percent of the teachers' interview responses were coded as pedagogy. Most of the teachers' responses were coded either as knowledge of learners (7.9 percent), additional resources (5.3 percent), or grouping (2.6 percent). The information teachers included in their discussion of pedagogical practices was linked to the professional development they received. For example, one of Teacher 7's responses indicated that the grade level meetings that focused on assessment data allowed her to "reach the children that were struggling more" (Interview, April 11, 2007) because the data provided evidence about the students' needs. Teachers also talked about the additional resources

that were discussed in professional development sessions, and how to group students was discussed often during the grade level meetings.

**Table 17 Pedagogy**

Code	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5	Teacher 6	Teacher 7	# of Responses	% of Responses
<b>Pedagogy (Total)</b>	<b>1</b>	<b>5</b>	<b>8</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>38</b>	<b>20.0</b>
Knowledge of learners (IS)	0	3	2	2	2	3	3	15	7.9
Additional Resources	1	0	5	2	1	1	0	10	5.3
Grouping	0	0	1	1	2	0	1	5	2.6
Differentiation (IS)	0	1	0	0	0	0	1	2	1.1
Scaffolding (IS)	0	1	0	0	0	1	1	3	1.6
Set instructional goals	0	0	0	1	0	1	1	3	1.6

Although 12.6 percent of teacher responses were coded as *experience* (i.e., teaching wisdom), it was difficult to connect this to professional development because this theme dealt with teachers' feelings and perceptions about instruction, and was not necessarily related to their participation in professional development.

**Table 18 Experience**

Code	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5	Teacher 6	Teacher 7	# of Responses	% of Responses
<b>Experience (Total)</b>	<b>0</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>24</b>	<b>12.6</b>
Teaching wisdom	0	6	5	2	2	7	2	24	12.6

Almost 5 percent (i.e., 4.7%) of the responses were coded as teacher learning. Teachers stated explicitly that a specific professional development made them more aware of their teaching. In the responses that were coded as “metacognition,” teachers described how professional development made them more aware of their teaching, and then the teachers described how their instruction changed because of this awareness.

**Table 19 Teacher Learning**

Code	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5	Teacher 6	Teacher 7	# of Responses	% of Responses
<b>Teacher Learning (Total)</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>4.7</b>
Metacognition	4	3	0	1	1	0	0	9	4.7

Examples of the teachers’ coded responses for the various categories are provided below to illustrate what teachers were saying about each of these dimensions. Some of the categories are grouped together to provide a more concise representation of teachers’

knowledge of Content, Pedagogy, and Curriculum. For example, the categories of comprehension, fluency, vocabulary, writing, and grammar are discussed as *components of literacy instruction*; reading and writing connection and complexity of reading are discussed as *literacy processes*; and knowledge of learners, differentiation, and scaffolding as *instructional strategies*.

#### **4.7.1 Content**

Overall, teachers' responses were coded most frequently as Content (38.4 percent). In the section below, specific examples related to assessment, literacy components, knowledge of literacy, etc., are provided as a means of elaboration in Content and an explanation of the connection to professional development opportunities.

##### **4.7.1.1 Assessment**

According to teachers, assessment was the most frequently discussed topic during their grade level meetings (11.6 percent). Specifically teachers discussed progress monitoring data, standardized assessment data, and use of writing rubrics for consistency across writing evaluation. The following excerpts provide examples of teachers' responses about professional development that focused on assessment.

Teacher 4 indicated that the professional development sessions (i.e., the grade level meetings) that focused on assessment influenced her reading instruction.

Well, sure, our PSSA results always important because we try to take from that and see where our strengths are and where our weaknesses are and then pinpoint the weakness and then work really hard there on that content.

(Teacher 4, interview, April 2, 2007)

Later in the interview, Teacher 4 reiterated how the professional development sessions that focus on the assessment results are impacting the overall instruction at Jacolyn Elementary School. This teacher stated specifically that the professional development opportunities focusing on the PSSA scores and the Terra Nova assessment influenced her instruction.

I think I have to always go back and say our test results because that I think is our most important tool because, I hate to repeat myself, but if that is what we have to work harder with and that is where we have to work harder. PSSA, you know discussing that. But I would always mostly say the PSSA and the Terra Nova are most important.

(Teacher 4, interview, April 2, 2007)

Teacher 7 discussed how reviewing the DIBELS scores during the grade level meetings provided her with information about her homeroom students' reading needs.

Reading specific, we had early intervention strategies. I remember that was strictly with the Dibels scores and how we could reach the low kids and the high ones in our homeroom. Now SFA, they all come in at the same level, so that kind of helped my homeroom more than my SFA.

(Teacher 7, interview, April 11, 2007)

#### **4.7.1.2 Components of Literacy Instruction**

The categories of writing, fluency, motivation, comprehension, vocabulary, and grammar accounted for 21.6 percent of the teachers' responses about professional development. Some teachers spoke more about a specific topic than other teachers, such as the writing category. Writing instruction was coded the most frequently (5.8 percent of the interviews); however, it was discussed by only three teachers. Fluency accounted for 5.3 percent of the comments; this made sense because fluency is an instructional focus in the SFA program. Four teachers discussed student motivation (3.2 percent) during the

interviews, while five teachers' responses were coded as comprehension (2.6 percent). Two teachers focused on the importance of vocabulary (2.6 percent) and grammar instruction (2.1 percent) in their responses.

Teacher 6 stated that professional development from previous years focused on writing instruction. Her response indicated that the professional development provided her with information about the writing process. The teacher was able to transfer the knowledge she gained in the professional development session to her writing instruction; therefore, she provided better writing instruction. Teacher 6 further explained how this method of writing instruction was adapted easily to all grade and ability levels.

We had learned 4-Square Writing block; that was a couple of years ago, in a continuing ed. We had a whole day training on that. It is wonderful. You put the main idea in the middle box and details for each in the four squares. It really increases writing skills, I've noticed, at all levels because you can adapt it.

(Teacher 6, interview, April 3, 2007)

Teacher 2 participated in the on-line course and the foci of this course were fluency and vocabulary. He stated that he was able to transfer his course knowledge to reading instruction that occurred in the literacy lab. "The first one was fluency and vocabulary. And what a difference having gone through that and teaching the kids literacy lab. And it has really shown me how to do things differently" (Teacher 2, interview, March 31, 2007).

According to Teacher 7 the formal professional development opportunities for the 2006–2007 school year focused on student motivation. This teacher indicated that she applied the information from these sessions to instruction that occurred with her homeroom students.

In general, it seems like this year we have had a lot of character education, making a difference, discovering a successful child, a lot of those motivating types of things. So in my homeroom, I have been able to implement a lot of that.

(Teacher 7, interview, April 11, 2007)

Teacher 6 indicated her understanding of comprehension instruction when she discussed how she was incorporating different media (i.e., the play, the movie, and the book) that represented the story (i.e., *Charlie and the Chocolate Factory* by Dahl). This teacher explained how she wanted her students to comprehend the similarities and differences between the various representations of the story. Teacher 6 also discussed the engagement and motivation of the students while attending to the different representations of this story. This story was not a part of the SFA program.

Well, it was to lead up to the dramatic climax of the lesson, which is eventually we were watching the movie. What we did was, instead of doing a compare and contrast with just the book and the play, because we read the book, we saw the play, and we are going to see the movie, the original version. We did a three-way circle so we tried what was the same from those three and then we separated them. And they, I have never seen them so engaged and to the movie and writing at the same time it just. They loved it, and they were engaged! And then there was a special project we did the other day; we had 10 minutes left, they designed their own factory.

(Teacher 6, interview, April 3, 2007)

Teacher 6's grammar instruction included correcting sentences using authentic editors' marks. Teacher 6 discussed how this type of instruction later impacts the students' writing ability.

What it is, is I have a huge poster of editors' marks and they have a sentence that has many mistakes. I will say six mistakes, eight mistakes and they have to find the editors' marks and find the mistakes. Like, if it is a capital letter, three lines underneath, and that is a second grade reading level and they are critiquing them as adults would do it. And that helps them because in SFA when they write a 4-square paragraph or turn it into a paragraph.

(Teacher 6, interview, April 3, 2007)



#### **4.7.1.3 Knowledge of Literacy**

Three teachers' responses were coded as providing broad or general statements about their knowledge of literacy (2.6 percent). These teachers discussed their insecurities with reading instruction, admitting a lack of literacy knowledge, or suggested that "programs" are not a quick fix for reading instruction. The following examples represent teachers' general statements about literacy.

Teacher 3 realized that the professional development she participated in thus far in her career has not provided all of the information she needs for effective reading instruction stating, "I know I don't know everything about teaching" (Interview, April 2, 2007).

Teacher 6's literacy learning was facilitated through the various professional development sessions she participated in during the 2006–2007 school year. These professional development sessions deepened Teacher 6's knowledge of literacy; moreover, she became more of a critical consumer of reading programs and understood that not all reading programs work for all students. "I am going to make a statement...not one size fits, not all programs are going to work and that is what I know" (Teacher 6, interview, April 3, 2007).

#### **4.7.1.4 Literacy Processes**

Although teachers' responses frequently did not reflect the themes of *reading and writing connections* and *the complexity of reading*, the teachers who discussed these came to important realizations about literacy processes.

Teacher 1 discussed her new understanding of the connection between reading and writing, which her graduate course emphasized. Before this course, Teacher 1 indicated that she did not recognize or focus on the link between reading and writing.

This is going to sound, I know, that writing and reading connect, but I always saw reading as one thing and writing as another, and that was a big discussion that she had, and one of the comments that someone had made was that most teachers and I fall in this category: don't connect reading and writing. I mean I know they go together; obviously you are writing and reading, but I never realized how much it was connected.

(Teacher 1, interview, March 31, 2007)

Later in the interview, Teacher 1 stated that she wanted her students to also understand the links between reading and writing and how these associations were forms of communication. Teacher 1's need to have her student understand the connections between reading and writing made sense because of her recent experience with this concept in her graduate course.

To make my kids realize that, they are writing down their thoughts. It is also, they are doing both reading and writing and they write down what they want to say and then they are reading it, so they are actually communicating to somebody else, not verbally, but through handwriting.

(Teacher 1, interview, March 31, 2007)

Teacher 6 indicated that the professional development sessions from the 2006–2007 school year exposed her to the complexity of reading instruction. This teacher identified how the components of reading are embedded deeply in reading instruction and she expressed concern for her lack of knowledge of these elements, since some the elements were not taught in her homeroom or with her SFA level.

Okay, what I have learned about literacy is it is very complex and takes many components. You cannot, there is just so many different components I never thought about because I don't teach first grade and, I just feel that there is a lot more. Probably, if I observed a first grade classroom that I might be able to use a little bit with my second graders and a little bit with the third graders. Like the phonics, we don't do a lot of that in the third grade. We wouldn't do it in the

reading block, so I am thinking, some of the components, if they start younger, if I had more experience in that...But I learned that it is very complex; you cannot pinpoint why this child has not grown in by one aspect, there are so many elements involved in getting a child to read.

(Teacher 6, interview, April 3, 2007)

#### **4.7.1.5 Programs**

Not many responses were coded as *program* related (1.6 percent); however, Teacher 1 explained how her participation in a graduate course exposed her to different literacy programs. Moreover, this course allowed her to become a more critical consumer of school-wide literacy programs.

Well, you know what actually I am taking a reading class for my Masters. It is with my principal's certification and it is a literacy class. And we have to make up our own literacy plans. So I was able to see what different literacy plans there are besides SFA. So now I know what I like, parts of Success for All, and what I don't... There are a lot of different reading programs. I am amazed. If you type in "School-Wide Reading Programs," you get this whole list.

(Teacher 1, interview, March 31, 2007)

#### **4.7.2 Curriculum**

Teacher responses were coded as curriculum (23.7 percent), with many of these responses relating to the mandated SFA reading program (14.7 percent). Responses about horizontal (5.3 percent) and vertical (3.7 percent) curriculum also were captured during teachers' interviews.

##### **4.7.2.1 SFA**

All but one teacher most frequently discussed SFA during their interviews (14.7 percent).

In fact, the number of responses about professional development involving the SFA

program indicated teachers' knowledge of the program and the fact that they bought into this program as the core for teaching reading. This was understandable, since the SFA program was implemented at Jacolyn Elementary School five years before the implementation of the Reading First grant; teachers were well versed in this core reading program.

Teacher 2 indicated that the SFA program dictated his reading instruction. He related his knowledge of the SFA program directly to professional development opportunities, although these opportunities occurred prior to the 2006–2007 school year.

Everything for us is pretty much structured; SFA, Success For All. It tells us what to say, when to say it, how to say it, and at what time to say it...When I first came to here, to this district, no one knew about SFA, but through training and in-services and things like that, we are taught how to teach this.

(Teacher 2, interview, March 31, 2007)

When Teacher 2 was asked where he learned about reading instruction, he again emphasized the importance of the professional development sessions that focused on the SFA program.

Basically from following the manuals sent by SFA and pretty much picking and choosing what works best for the class that I have at that moment. In-services, trainings, things like that...the professional development that was showed to us, given to us provided for us by the district for this subject area.

(Teacher 2, interview, March 31, 2007)

Teacher 3 also stated that since the reading program at Jacolyn Elementary School was scripted, there were not many opportunities to incorporate additional information. “It is in the manual; this is scripted so you have it word for word” (Teacher 3, interview, April 2, 2007).

Teacher 4 described her daily reading instruction as uniform (i.e., the instruction was very routine). “Basically what we do, like I showed you earlier, it is very scripted. So every day is basically the same.” (Teacher 4, interview, April 2, 2007).

Teacher 5 stated that the students at Jacolyn Elementary School were successful in reading because of the SFA program, indicating that the professional development sessions that focused on the SFA program were important to her.

I think if you came in and saw these children at the beginning of the school year and how much they have progressed throughout the school with the SFA program, you would see a lot of progress.

(Teacher 5, interview, April 3, 2007)

Teacher 7 indicated that the majority of the professional development opportunities during the 2006–2007 school year targeted reading instruction. This teacher’s response also provided insight into her opinion about how the SFA program was a comprehensive reading program. “Geeze, everything was geared towards literacy, pretty much that all of the aspects of SFA aid in literacy. You have to have all of the parts to improve at literacy” (Teacher 7, interview, April 11, 2007).

#### **4.7.2.2 Impact of Reading Across All Subjects**

Teachers’ responses (5.3 percent) indicated that professional development facilitated more understanding about horizontal curriculum. These responses indicated that teachers were better able to understand how the information they learned about reading instruction could be transferred to other subject areas.

Teacher 2 indicated that his participation in the on-line course allowed him to understand how the information he was learning could be applied to his reading instruction and how to transfer the knowledge from the course to other content areas.

And so that and the vocabulary and the fluency section we just finished, it was just, wow, I mean this is really, I mean our reading program goes along with it well. It just really follows it; I mean the repetition and having the children repeat it and, you know, I mean it is not just for reading; I mean I can do it for science, which I have, and you can carry it onto math and spelling and things like that.

(Teacher 2, interview, March 31, 2007)

The professional development sessions that Teacher 5 participated in allowed her to understand better the impact reading had across all subject areas. “It is very important for kids to learn how to read. Well, basically if they struggle with reading and the teacher is not putting enough emphasis on their reading, then every other subject is going to suffer” (Teacher 5, interview, April 3, 2007).

#### **4.7.2.3 Sequence of Curriculum**

Four of the seven teachers addressed vertical curriculum during the interview (3.7 percent), often associating it to the SFA program. Teacher 5 indicated that her knowledge of vertical curriculum was based on the SFA program. Professional development that focused on the SFA program deepened this teacher’s knowledge of curriculum. “Well, because fluency in every grade level is something that SFA, you know, requires you to document and to make sure that their fluency is on level” (Teacher 5, interview, April 3, 2007).

Teacher 6 explained that her understanding of vertical curriculum was due to the fact that she was a third grade homeroom teacher who taught a second grade SFA reading group.

I have an advantage by teaching a third grade homeroom and teaching a second grade reading, because I know where I want them to be, so I really push. A lot of second grade teachers teach third grade, which, in a way, at first we used to fight that, because we would say how do they know what is on the PSSA and what’s it cover? But it is better if the third grade teachers teach second grade because they

can make sure that the content area is covered...But you cover that as well as what you need to cover, as far as standards and things, your district curriculum they want you to cover. We know that if we get them at second grade, then all third grade, when they get to third grade reading level, they just review it and it just really instills it. I do like that, third grade teachers teach second grade reading class.

(Teacher 6, interview, April 3, 2007)

### **4.7.3 Pedagogy**

All teachers discussed pedagogical topics with 20 percent of the responses coded as pedagogy. In the following section, sub-themes within the larger theme of pedagogy are grouped because these topics are closely related and nested within each other. Other themes are addressed independently (i.e., grouping, setting instructional goals, and additional resources).

#### **4.7.3.1 Instructional Strategies**

This category includes the closely related themes of knowledge of learners, differentiation, and scaffolding, which relate to instruction. The majority of teachers (i.e., six teachers) discussed how their understanding of student needs (i.e., knowledge of learners) influenced their instruction (7.9 percent). Teachers' responses also indicated that they used differentiation (1.1 percent) and scaffolding (1.6 percent) during reading instruction.

When Teacher 2 was asked how he incorporated information from the professional development sessions into his teaching, he stated that student needs influence his instruction. "Again, it depends on the students, if I can or not. So, but I do

try to use what I have been taught or what I have seen that looks good and that I can use” (Teacher 2, March 31, 2007). This teacher indicated that he does try to incorporate information from professional development sessions.

Teacher 2 also stated that, generally, professional development exposed him to the concept of differentiating instruction in order for all students to receive the instruction they need, highlighting the fact that students learn differently.

I have learned so much. Not every child learns how to read the same way, and I think I learned in that some are more visual and that is just with learning; in general, some can learn by just watching you do it and some have to do it themselves, and some have to be shown more than one time how to do it. So what I learned about literacy is that no one way is the correct and only way. I have to adapt to what best meets the students’ needs. Not all 15 kids are going to learn just this way.

(Teacher 2, interview, March 31, 2007)

Teacher 5 also stated that the grade level meeting at which the SFA consultant presented impacted her instruction. This teacher discussed a particular student’s placement (i.e., the student was having difficulty in this reading group) within an SFA reading group with the consultant.

Well, it helps to target that one child that needs that little extra assistance. Because usually with SFA they are placed already by ability groups so she just didn’t quite fit in that group, she didn’t fit in the group before that, so it just helps target her.

(Teacher 5, interview, April 3, 2007)

The on-line course provided Teacher 2 with exposure to the Gradual Release of Responsibility Model and the opportunity to better understand how he could incorporate this scaffolding into his reading instruction (i.e., this response also was coded as metacognition).



These [the on-line courses] actually do. I mean I have talked to XXX [the full-time coach] about them; I have told her, wow, this really, like the Gradual Release Model. I was doing this without realizing that is what it was called.

(Teacher 2, interview, March 31, 2007)

The professional development (i.e., the on-line course) that Teacher 6 discussed provided her with opportunities to better understand how to scaffold her reading instruction.

Recently, I am taking a course on-line and it has a lot of Gradual Release of Responsibility method, which I have always done that on my own but not knowing what it was, and I have really refined it and taught you how to properly do it, because it is a lot of modeling and how the kids model after what you do. A lot more teaching than what traditional teaching methods, yes, so the gradual release model.

(Teacher 6, interview, April 3, 2007)

#### **4.7.3.2 Grouping**

Teachers indicated that grade level meetings provided information about students' reading abilities. Teachers then used this information to guide how students were grouped (2.6 percent). This information was used to support SFA reading groups and provided information about how to group students during instruction that occurred in the homerooms.

The professional development session that influenced Teacher 5's reading instruction highlighted the way by which the students at Jacolyn Elementary School were grouped for reading instruction based on their DIBELS scores. This teacher stated that this topic was discussed at a grade level meeting.

The DIBEL scores, maybe that they reviewed, it showed us how they get their scores. If anything those in-service days tell you how they get the scores. Well, XXX [full-time reading coach] will go over if you have a question about a

specific child if they are placed appropriately; she will pull out the Dibels and use it to reinforce why they put the child in that group.

(Teacher 5, interview, April 2, 2007)

Teacher 7 indicated that the professional development she received throughout the year on the assessment data provided her with information on her homeroom students. This information allowed her to group her homeroom students appropriately for additional reading instruction.

When my homeroom comes back, just because I don't teach my homeroom reading, per se, that doesn't mean that I don't care about their phonics and their fluency and all of that. So we, throughout the day because of the data we receive on our homeroom, I know kind of how to group them also. So I put learning centers together and I make sure the ones that need help with certain phonics or do more phonics, where the other ones can go onto other things.

(Teacher 7, interview, April 11, 2007)

#### **4.7.3.3 Set Instructional Goals**

According to teachers, professional development provided opportunities for teachers to set instructional goals collectively (1.6 percent). Typically when teachers discussed setting instructional goals, they referred to grade level meetings that included reviewing assessment data. These data provided teachers with evidence on which to base their instructional goals.

Teacher 4 indicated that the professional development sessions that focused on assessment results allowed the teachers at Jacolyn Elementary School to set instructional goals collectively for more effective instruction (i.e., this response also was coded as assessment). "Because we set goals and then we worked really hard to reach them" (Teacher 4, interview, April 2, 2007).

Teacher 7's responses also suggested that the teachers set instructional goals collectively to improve students' reading achievement. These goals were based on the assessment data; therefore, evidence was provided to support these instructional goals. "It just helped reach the children that were struggling more, because between the data and what she [SFA consultant] told us, it kind of motivated us to target the certain children that needed it" (Teacher 7, interview, April 11, 2007).

#### **4.7.3.4 Additional Resources**

Teachers discussed additional resources that they included in their reading instruction (i.e., different texts, activities, etc). The teachers who most explicitly discussed additional resources were both in the same graduate course. Five percent (i.e., 5.3 percent) of the teacher responses were coded as additional resources.

Teacher 1 said that her graduate course provided her with additional resources for her reading instruction. This teacher explained how the course exposed her to different information and provided resources she was able to use in her teaching.

I like the class because I get to hear different ideas, from other people and the books presented today, the character web. I was actually able to use that with another student I was tutoring for my class. And I got a couple of worksheets from my reading specialist in my class to bring to my classroom.

(Teacher 1, interview, March 31, 2007)

Teacher 3 also referred to a graduate course as a resource for additional information and instructional materials.

Because I chose to do my research on reading, and I still continue to look for different strategies for that. And with the literacy course I am taking now, it all adds to it and you hear different ideas and you just grab and you try.

(Teacher 3, interview, April 2, 2007)

#### 4.7.4 Experience

##### 4.7.4.1 Teaching Wisdom

Even with the various professional development opportunities that teachers discussed during their interviews, their responses indicated that they still relied frequently on their *teaching wisdom* to guide their instruction; 12.6 percent of the responses from 6 of the 7 teachers were coded as teaching wisdom. This wisdom was based on their experiences as teachers and not necessarily from information presented in professional development.

Teacher 2 described how his feelings and perceptions about his students' abilities influenced his reading instruction.

I am sure there are things that I was taught that I don't teach just because I don't feel that they are practical enough for the age or for the group that I have...just by the feel of the classroom. And what is easiest for me to explain to them... So I can feel the classroom and see how they are doing and see what works for them and for me.

(Teacher 2, interview, March 31, 2007)

Teacher 3 indicated that she incorporated information from her professional development sessions based on student reactions. "If I think it works and the kids have a smile on their face, then I use it—because it works for that kid or that group" (Teacher 3, interview, April 3, 2007).

Teacher 4 reported that she incorporated information from her professional development sessions (i.e., the sessions that focused on assessment), based on her perceptions and feelings of what needed to be taught.

If I feel that it is going to help...you know you take everything you learn and then if it doesn't apply, then naturally you are not going to do it. But if it would apply

and help, then you would. And do we use everything? Probably not, but do you use it and add you own flavors to it. That's how I would anyway.

(Teacher 4, interview, April 2, 2007)

Teacher 4 stated further,

Okay. I keep going back to what I thought was the most important...that was the scoring. You take what you know and how you teach, and then you apply the test scores to it, and then just really focus on those things. But naturally, you have to know how to teach these things and what extras you need for these things, and that is where you would take from your prior learning.

(Teacher 4, interview, April 2, 2007)

Teacher 5 indicated that she incorporated information from the professional development sessions because she *knew* what her classroom needed. This teacher's response suggested that she relied on her feelings about students' instructional needs rather than on evidence provided by data.

Well ,you know what applies to what you need. You take from the in-service what you could utilize in your class...I think just touches base to refresh you. You know year to year...Well, you apply it as needed. You take what you need. If they tell you how to increase fluency, and you have a child who is struggling in fluency, you are going to target that.

(Teacher 5, interview, April 3, 2007)

According to Teacher 6 she incorporated information from her professional development sessions based on what she observed "worked" with her students. Although Teacher 6 suggested that teachers were held accountable to the SFA program, she stated that she also incorporated professional development information based on her perceptions of what works with her students and her experiences.

I always like to try whatever they [professional development opportunities] introduce. I would like to see if any of it works so I always give it a test run and, like I said, you always just pull whatever does work. But the main thing is that it may not work this year, but it is in the back of your mind to try it with a different group, or that type of thing. Mostly it is just...we have to follow the SFA format to the T; because we are held accountable for that. It is in our plans, plus with the

state standards, so what I do is just incorporate as much of the other stuff that I know is important through trial and error and experience. You know what works.  
(Teacher 6, interview, April 3, 2007)

#### **4.7.5 Teacher Learning**

##### **4.7.5.1 Metacognition**

Four teachers' responses were coded as metacognition, or 4.7 percent of the responses. These teachers' responses indicated that the professional development they participated in made them more reflective practitioners.

Teacher 1 stated that she wanted a particular student's reading achievement to improve but did not provide additional instructional support until an assignment for the graduate course she was enrolled in made her focus on this student. During the interview, Teacher 1 reflected that although she wanted to see a change in this student's achievement, she did not provide additional academic support for this student. She then began to provide additional academic support for this student because of a course assignment. Once she saw this student make academic gains, she stated that she continued to provide the necessary extra support for the student even after she completed the original assignment.

Because the person that I worked with is in my emotional support classroom, and I have always wanted to see an improvement in his reading, in his fluency, and comprehension. And I never, I wanted to see it, but I never made the time to do it and then I had to make the time for my class, so now I am continuing to do that.  
(Teacher 1, interview, March 31, 2007)

The graduate course in which Teacher 1 was enrolled allowed her the opportunity to reflect on her instruction. This teacher stated she was more aware of her instruction because of her additional work with a struggling student in her classroom.

Again, with my tutoring that I have I was able to see, Bob [pseudonym] is on a lower level than what he is supposed to be, so I was able to use the suggestions that my reading specialist had given me: Reading with poems to build fluency, reading over and over again, different worksheets as far as character web, main idea of the story, beginning, middle, and end of the story. So I don't necessarily use those exact sheets, but in reading, when I am talking to him about sequencing and things like that, I try to say, "Okay, beginning, what happened in the beginning of this chapter?" So I am more aware of things that the students need to remember.

(Teacher 1, interview, March 31, 2007)

Again, during the interview, Teacher 1 indicated that she reflected on her teaching because of her work with a struggling reader per the assignment in her graduate course. According to Teacher 1, she was able to be more intentional in her teaching because she was more aware of her instruction. As Teacher 1 reflected, she was able to determine what she *thought* her students understood, what her students *actually* understood, and then incorporate the suggestions she received from her classmates and instructor of the graduate course. The following two excerpts demonstrate how Teacher 1's graduate course influenced her understanding of good instruction. She became a more "reflective" teacher because she was more aware of her knowledge and was able to self-monitor her instruction.

I think I become more aware of what I am doing. At times, I assumed that they know what I am talking about and the tutoring and the suggestions I got, I thought, "well he didn't know how to do this." He knows what beginning, middle, and end is, and these students know what comes first. Now, I am concentrating on that, to make sure that they understand.

(Teacher 1, interview, March 31, 2007)

Teacher 1 further stated,

When I am reading a story or a poem, I ask them: okay, beginning of the story what happened, and then I am using the key words so they are getting difference between what happened at the beginning and what happened at the end. Like I might say, okay, tell me what happened in the story. And they might tell me the very ending, and that did happen in the story but that is not what I wanted. I wanted you to give me a list from beginning to end. So now I am more aware of

saying, okay, so now I want you to tell me what happened at the beginning and then what happened at the middle and then what happened in the end.

(Teacher 1, interview, March 31, 2007)

Teacher 2 indicated that he reflected on his instruction because of his participation in the on-line course. He stated that the way he was teaching (i.e., implementing the Gradual Release of Responsibility) was considered to be effective practice.

I was very surprised that I was doing a lot of what is out there that should be done. So it makes me think about what is out there and think, wow, I am doing what is supposed to be done... It has made me more aware of what I need to do to get them to where they need to be.

(Teacher 2, interview, March 31, 2007)

Teacher 4 reflected on her professional development and explained that she incorporated information into her reading instruction if the material presented at the professional development session aligned with the SFA teacher's manual.

When I am looking at the teacher's manual and you are reading what you are suppose to do for that day, then it will spark. Oh, I know, for some reason I learned this in a class or I learned this by listening to that speaker.

(Teacher 4, interview, April 2, 2007)

## **4.8 SUMMARY**

Teachers' responses indicated how professional development influenced their knowledge of Content, Pedagogy, and Curriculum, and therefore their reading instruction. Content appeared to be the most influential of these three overriding themes, although teachers also highlighted the impact of professional development on curriculum and pedagogy. The sub-themes that that were most frequently coded in the teachers' responses were the



SFA program, teacher wisdom, and assessment. Other themes emerged from the teachers' interview data; however, these three were identified the most frequently.

The fact that teachers talked most frequently about SFA made sense, because this was the school's reading program. The teachers at this school received various professional development sessions on this reading program and the responses reflected their knowledge of the program and the fact that most of the teachers' knowledge about reading instruction came from their work with this program.

Although teachers indicated that professional development did influence their reading instruction, many of the teachers' comments reflected their reliance on teacher wisdom. Teaching experiences influenced their reading instruction. These responses indicated that teachers relied on their feelings and perceptions about what students needed to guide their instruction.

Assessment often was discussed by teachers; which reflected the emphasis on using assessment data, often addressed in professional development. Teachers indicated that, particularly during grade level meetings, assessment results were reviewed (i.e., informal and standardized assessments), instructional goals were set from the assessment data, student groups were established from the results, and teachers differentiated their instruction because of the evidence that the assessment results provided.

#### **4.9 IN WHAT WAYS HAS PROFESSIONAL DEVELOPMENT HAD AN IMPACT ON TEACHERS' INSTRUCTION?**

To answer research question 4, teachers were observed in their classrooms; in addition, they participated in pre- and post-interviews. The pre-interview was used to obtain information about the lesson observed. In other words, teachers were asked to “tell me what I will see in the lesson.” In the post-interview, teachers were asked to discuss the focus of their lesson and to talk about where they had learned to use the approaches seen in the lesson.

Field notes were coded line by line to determine whether an element of effective instruction was observed. The codes can be found in Table 5. For example, the teacher would ask an explicit question for the text that was read and prompt the students to discuss the answer with his/her partner in their pods. Students then would raise their hands to answer the question. This example was coded as answering questions (AQ) (SFA, NRP) and student collaboration (CL) (SFA, NRP). The codes answering questions and student collaboration were in the SFA program and the recommendations for the NRP.

Two raters read and coded 20 percent of the narrative field notes. Once each rater had the opportunity to code the field notes, the raters discussed how they coded the data. If there was a discrepancy between the two raters, they discussed the code for the field notes and made a decision to clarify the coding. Results of this discussion were used to analyze the remainder of the field notes. An inter-rater reliability of 85 percent of agreement was reached between the two raters.

The transcribed field notes taken during observations were analyzed to determine the content (e.g., what) teachers were teaching and how (e.g., instruction) they were teaching that content. In order to describe effective teaching and make connections to the professional development in which the teachers participated, decisions about whether teachers were using instruction that reflected their understanding of scientifically based reading research were determined by looking for evidence of approaches consistent with those promoted in the National Reading Panel Report (2000). Because teachers also had received a great deal of professional development about their current reading program, SFA (2001), narrative notes also were analyzed to determine the alignment of procedures/approaches with the SFA program. Finally, given that instruction in writing was seen in these classrooms, the recommendations of NCTE (2004) and SFA (2001) regarding effective writing instruction also was used in the template to analyze observations (Table 5). The analysis of the transcripts for each of the seven teachers is presented with confirming evidence about what dimensions of effective instruction are being implemented. A coded observation lesson for each teacher is provided in Appendix H.

The coded field notes allowed the researcher to understand better what elements of professional development were implemented into each teacher's reading lesson. Once each lesson was coded, a synthesis of each teacher's lesson was discussed—the relationship between what was observed during the observations and what that specific teacher indicated he/she had learned from specific professional development.

Below, a synthesis of each teacher's observed lesson is provided. Examples of how each teacher's lesson related or did not relate to effective instructional practice and

the links between teachers' instruction and professional development are discussed. The codes used for this analysis can be found in Table 5. Again, a summary of each teacher's lesson and the coding applied to the lessons are provided in Appendix H.

#### **4.9.1.1 Synthesis of Teacher 1**

The teacher's approach was to follow directions in the SFA manual. She used the manual to guide the sequence of her lesson, the text she read, the vocabulary to teach, and the comprehension questions to ask. The teacher did supplement her reading instruction with a character web to support comprehension and promote character analysis. She indicated in her interview that she learned about this specific procedure in her graduate class.

Also, the teacher discussed during her interview how her professional development (i.e., specifically her graduate course) made her "more aware" of her teaching, and she now was more knowledgeable about the connection between reading and writing. This teacher's reliance on the SFA program, specifically the teacher's manual, made it difficult to observe how this teacher modified her instruction, given her new "awareness of her teaching." Writing instruction was not included in this observation, so again, although the teacher stated that she was more knowledgeable about the link between reading and writing, there was no evidence in the observation as to whether she discussed this connection with the students during writing instruction.

In sum, this teacher applied what she learned from the professional development provided by SFA to her instruction. In addition, she took what she learned from her graduate work, also a source of professional development, to supplement her classroom practices. During the interview, this teacher provided insight into her newfound

knowledge of the connections between reading and writing, and she stated that she was more aware of her teaching; however the teacher's awareness of teaching and knowledge of the connections between reading and writing were not observed because she had strong fidelity to the SFA manual, and writing instruction was not observed in the lesson.

#### **4.9.1.2 Synthesis of Teacher 2**

This teacher had strong fidelity to the SFA program and used the SFA manual throughout the observation. During this teacher's interview, he discussed how the professional development that focused on the SFA program influenced his reading instruction. This was apparent during the lesson because of his ongoing use of the manual. Analysis of the classroom observation did not provide any indication that the teacher supplemented instruction with resources other than the SFA program. Given his comments during the interview about the effectiveness of the SFA program, this made sense.

During the interview, the teacher stated that the on-line course impacted his instruction. The topics of the on-line course were vocabulary and fluency instruction; both were observed in this teacher's lesson. The teacher also discussed how the on-line course provided him with information about how to scaffold his reading instruction. The teacher described how he reflected on this information and realized how he needed to guide his students better through fluency instruction. Although the teacher indicated that professional development made him more metacognitively aware of his teaching, it was difficult to attribute any of this teacher's instruction during the reading block to personal reflection because of his explicit use of the SFA manual.

#### **4.9.1.3 Synthesis of Teacher 3**

This teacher used the SFA manual to guide her reading instruction, and the professional development sessions about the SFA program certainly influenced her instruction. The teacher also incorporated the 4-Square graphic organizer during her writing instruction. This was not a part of the SFA program; however, teachers had received professional development about this instructional technique earlier in the year. Teacher 3 incorporated this additional resource from professional development into the mandated reading program to enhance her literacy instruction.

Teacher 3 indicated that her graduate course influenced her instruction because it made her think more about student needs and how these needs affected her instruction (i.e., a better knowledge of her learners). This teacher also described grade level meetings as a way to gather information about student assessment results; this information also provided this teacher with a better understanding of her students' needs. Although this teacher indicated that professional development opportunities allowed her to become more cognizant and familiar with her students' needs, this teacher was not observed applying this information directly because she clearly followed the SFA manual for her reading instruction (i.e., her instruction was not student need-driven).

#### **4.9.1.4 Synthesis of Teacher 4**

Teacher 4 followed the SFA manual in her teaching, although she did include additional background information about the text for the students. For example, this teacher included information that was not part of the SFA program when she made a self-to-text connection for the students about a city (e.g., Pompei) where she had traveled and saw mummies similar to the mummies in the story the students were reading. Besides the

information the teacher provided about Pompei, she adhered strictly to the SFA reading program during the observation; therefore, the professional development that she identified on SFA was able to be linked to her instruction.

The interview data from this teacher supported the idea that the professional development on the SFA program influenced her instruction. This teacher also discussed how professional development that focused on assessment provided her information about her students' needs, allowed the teachers to set instructional goals collectively for the students at Jacolyn Elementary School, and provided information for student grouping purposes (the SFA program groups students according to their reading levels). It was difficult to relate the information that this teacher discussed during her interview to the observation. For example, for most of the observation, this teacher followed the SFA manual. She did not indicate that she was targeting any collective instructional goals that were derived from student assessment data. Also, because the students previously were grouped, it was unclear if the teacher was targeting students' specific instructional needs or if she simply was following the SFA program.

#### **4.9.1.5 Synthesis of Teacher 5**

The lesson aligned with the SFA program. The teacher read directly from the manual and did not deviate from the written script until the very end of the reading class, when she read a story to her class that was not a part of the SFA program. The teacher indicated that professional development did provide her with information about fluency instruction; this teacher's read-aloud modeled fluent reading for her students.

During this teacher's interview, she repeatedly indicated that professional development that focused on the SFA program influenced her reading instruction. She

stated that she had specific questions about one of the students in her SFA reading group, and the professional development opportunity that included the SFA consultant provided this teacher with the instructional support she needed for this particular situation. This professional development opportunity provided this teacher with a better understanding of the SFA program and how to use it to fit this specific student's needs. Since SFA groups students homogenously according to their reading levels, the teacher taught a whole group lesson during the observation. Therefore, although the professional development session provided her with information about aligning one student's needs to the SFA program, she was not observed individualizing her instruction within the SFA program to meet students' needs.

#### **4.9.1.6 Synthesis of Teacher 6**

The teacher did not follow the SFA program during most of the lesson. The teacher explained in her interview that the students needed to be exposed to text above their independent reading level (e.g., through listening comprehension); therefore, she incorporated read-alouds above her SFA group's independent reading level. When this teacher was asked where she had learned the importance of this, she indicated that her continuing education courses and the SFA program influenced her. Teacher 6 followed this statement by saying that she took the "good parts of the reading program" and incorporated it into her teaching, based on the needs of her students. Professional development opportunities influenced this teacher's instruction by allowing her to understand her students' needs better and to modify the program to fit student needs rather than fitting students into a reading program.



This teacher stated that professional development opportunities provided her with information about a variety of topics. For example, she indicated that “scaffolding instruction” was a topic of professional development. Teacher 6 indicated that the Gradual Release of Responsibility model was discussed during a professional development session. This teacher was observed scaffolding her instruction during her interactive read-aloud. Also during the interview, this teacher discussed how motivation, vocabulary, and grammar were discussed in professional development. Again, the observation revealed that this teacher’s instruction included all of these topics (i.e., she motivated students by reading an interesting story. The teacher discussed unfamiliar vocabulary words from the text while reading. A grammar mini-lesson was just beginning at the end of the observation.) The observation indicated that Teacher 6 was able to transfer new information successfully from her professional development sessions to her classroom practice.

#### **4.9.1.7 Synthesis of Teacher 7**

Comments made by this teacher during the interview clearly reflected her allegiance to the SFA program; however, this teacher did not read directly from her manual at all during the observation. The teacher stated that because she had taught the SFA program for multiple years, she knew the instructional expectations of the SFA program. Thus, although this teacher did include many of the SFA elements into her reading instruction, she did not read from the SFA manual.

According to this teacher’s interview, the professional development sessions that most impacted her reading instruction were those that focused on the SFA program. Teacher 7 indicated in her interview that comprehension and fluency instruction were

discussed in professional development. According to the field notes, comprehension and fluency were included in this teacher's lesson. This teacher did not read directly from the SFA manual; however, her lesson did align with a typical SFA reading lesson. This teacher identified professional development that focused on the SFA program to be informative, and the observation indicated that she did follow the SFA program.

#### **4.10 SUMMARY**

The observations revealed that all of the teachers incorporated elements of the SFA program (2001). Some of the teachers' instruction also included instruction recommended in the NRP (2000) report, and NCTE (2004) recommendations. During the observation, elements of the SFA program were incorporated most frequently. Since SFA was the mandated program in this school, teachers received professional development on this topic; therefore, the information teachers received during professional development sessions frequently was observed in their reading instruction.

Professional development that focused on the SFA program was most evident in the teachers' reading instruction. During the interviews, teachers often discussed what they had learned from professional development that focused on the SFA program. The observations indicated that the teachers understood the format of the SFA program and how to follow the script for reading instruction.

Although most teachers followed the SFA program for reading instruction, a few teachers did include additional resources into their reading instruction (e.g., a graphic organizer for comprehension and one for writing instruction). This being said, the

implementation of resources outside of the SFA program was minimal during the observations. Teachers discussed these additional resources during their interviews, and the observations revealed how teachers incorporated some of these additional resources into their teaching. As teachers incorporated these additional pieces into their instruction, a link was able to be made connecting information from professional development to classroom practice.

While teachers also spoke of other information that they received in professional development, not everything the teachers discussed was observed during their reading instruction (e.g., metacognitive reflection and the connection between reading and writing were not observed). One possible explanation may be that the teachers chose to follow the SFA script rather than being responsive to students' needs by incorporating newly learned information into their reading instruction that would support student learning (i.e., the *SFA program* guided the teachers' reading instruction rather than *students' needs* guiding reading instruction).

During the observations, teachers at Jacolyn Elementary School demonstrated a strong fidelity to the mandated core reading program. The teacher interviews indicated that teachers were learning information about reading instruction beyond the core reading program; however, most of the teachers were not observed implementing much of this "knowledge beyond the core." Although teachers indicated that they were more knowledgeable about reading and reading instruction because of professional development opportunities, the teachers were not able to implement this knowledge into their 90-minute reading block because of the mandated scripted program. High quality professional development provides teachers with opportunities to become more

knowledgeable about the content, pedagogy, and curriculum of reading. If teachers are not able to implement knowledge gained from professional development (i.e., it is not part of the mandated scripted program), then the acquired information becomes meaningless for teachers.

As previously stated, most of the teachers in this school followed the mandated core reading program strictly. During his interview, the principal stated that the SFA program was implemented at Jacolyn Elementary School five years before the implementation of the Reading First grant (i.e., the SFA program was the reading program for the last eight years). The Reading First grant was awarded to schools in which student achievement needed to improve; since Jacolyn Elementary School already had a core reading program, it was able to use the funds from the grant to support a literacy lab.

The literacy lab provided students with an extra thirty minutes of reading instruction twice a week. Three different reading programs (e.g., Failure Free Reading, 1988; Read Naturally, 1991; and Success Maker, 2007) were available in the literacy lab, and the students were assigned to one of these programs during each visit to the literacy lab. The students charted their progress in each of these programs in folders. Also, the homeroom teacher was in the lab with the students to help monitor progress, and tutors were available for students who needed individualized help in reading.

Although Jacolyn Elementary School teachers had strong fidelity to the core reading program, they may have implemented the information from the professional development sessions during other literacy activities throughout the school day (i.e., the literacy lab). Again, it is important to recognize that the observations occurred only

during the 90-minute reading block. Additional time spent in the literacy lab with teachers who were able to make instructional decisions “beyond the script” may be contributing to student achievement in this improving school.

## **5.0 CONCLUSION**

### **5.1 INTRODUCTION**

This chapter discusses the overall findings and summarizes conclusions drawn from the study, including implications for those involved with professional development. It offers a topic of discussion, examines limitations of this study, and finally provides recommendations for further research.

### **5.2 FINDINGS**

#### **5.2.1 Research question 1: What was the nature of professional development in a Reading First School in which reading achievement improved, and how were professional development activities made available to teachers?**

Overall, teachers at Jacolyn Elementary School had a variety of professional development opportunities. The teachers were engaged in a greater amount of formal professional development (i.e., sessions that focused on literacy and were led by a presenter) during the initial years of Reading First implementation. However, during the year of the study (2006–2007), the teachers had fewer opportunities to

participate in informal professional development and most professional development occurred during grade level meetings. Many of these grade level meetings dealt with substantive information, such as assessment, the Reading First grant, SFA, the five components of reading instruction as identified in the NRP report (2001), and PSSA preparation. Logistical or administrative information also was discussed at these meetings. For example, information about open house and the book fair was distributed to teachers. The full-time reading coach facilitated all of the grade level meetings at Jacolyn Elementary School. Teachers' interview data indicated that when the teachers selected a grade level meeting as influential professional development, they selected a session in which substantive information was being presented (e.g., using assessment data).

**5.2.2 Research question 2: What features of the professional development activity align with what is known about effective professional development, and what were the similarities and differences in perceptions of the teachers, coaches, and principal about the participation and characteristics of professional development?**

All of the participants identified professional development sessions that provided substantive information as the most influential. During the interviews, the majority of teachers identified professional development sessions that were reform type and included collegial participation (i.e., structural). The teachers who selected graduate course work were engaged in sessions that occurred over multiple sessions, while teachers who selected a grade level meeting did not choose a topic that occurred over multiple sessions. The literacy leaders did not identify professional development sessions that had a

reoccurring topic. All of the participants indicated that effective professional development that had the greatest impact on their instruction included active learning and was congruent with personal, district, and state standards (i.e., core). Since each participant was asked to select a professional development session he/she perceived to influence the instruction, the topics varied (i.e., there was not a consistent content theme that participants selected).

The literacy leaders, the principal and full-time literacy coach, selected the same professional development session as the most effective. The professional development related indirectly to literacy instruction; it focused on handwriting instruction, was presented in a traditional format to the entire school faculty, and occurred in one session (i.e., structural category). According to the literacy leaders, this professional development session provided active learning opportunities and was congruent with teachers' personal goals and district and state standards (i.e., core category). Overall, teachers frequently identified topics discussed at grade level meetings as most influential, while the literacy leaders selected a more traditional format of professional development as the most influential.

Each teacher selected a professional development session that directly to specific aspects of literacy instruction (i.e., assessment, the five components, writing instruction, etc.). Although the topics chosen by teachers varied, all topics identified by teachers can be found in the in the SFA program.



**5.2.3 Research question 3: What were teachers' perceptions about how their involvement in professional development activities changed/influenced their instructional practices?**

Most teachers perceived professional development that focused on assessment as increasing their content knowledge and influencing their instruction. Teachers also perceived professional development as influencing their curricular and pedagogical knowledge. Teachers indicated that professional development sessions focusing on the SFA program heavily influenced their understanding of vertical (i.e., grade to grade) and horizontal (i.e., across content areas) curricula.

Although teachers identified various professional development opportunities that enhanced their knowledge of content, pedagogy, and curriculum, the teacher interviews also revealed that their instruction often was influenced by personal experience. Therefore, teachers relied on teaching wisdom that came from their teaching experiences to guide their instruction. Some teachers also indicated during the interviews that they reflected (i.e., metacognition) on their teaching and that this reflection influenced their instruction.

**5.2.4 Research question 4: In what ways has professional development had an impact on teachers' instruction?**

As previously stated, teachers indicated that the professional development that focused on the SFA program influenced their instruction; this was corroborated during the classroom observations. All teachers incorporated aspects of SFA in their classroom

instruction. Teachers' instruction also included elements supported by the NRP report (2001) and NCTE recommendations (2004); typically, the SFA program aligned with elements from these two resources.

Comprehension instruction and peer collaboration were observed in most teachers' classrooms. During an observation, one of the teachers used techniques that were not necessarily part of the SFA program but had been highlighted in her selected professional development session. For example, this teacher used a character web during the SFA reading block that had been gleaned from her graduate coursework.

All teachers modeled fluent reading for their SFA reading groups; this type of fluency instruction was an integral part of the SFA program. However, fluency instruction beyond modeled reading was not observed.

The writing instruction that occurred during the classroom observations aligned more closely with the SFA program than with the recommendations of NCTE. The observations revealed that several teachers supplemented SFA writing suggestions with information from their selected professional development sessions. For example, one teacher was observed using the 4-Square Writing technique, a topic that was discussed in a professional development session earlier in the 2006–2007 school year.

### **5.3 CONCLUSIONS**

*The core program, Success for All, was most influential in teachers' professional growth.*

Even when teachers did not explicitly identify SFA as an influential source of professional development, the content of most of the professional development sessions can be found in the SFA framework for reading instruction. The grade level meetings often addressed different components of literacy instruction that were an integral aspect of SFA reading instruction. For example, teachers frequently identified the importance of reviewing student assessment data at grade level meetings. Students were assigned to SFA reading groups based on assessment scores, and teachers were aware of the importance of these results. Also professional development opportunities that focused on literacy components often reinforced SFA reading instruction.

The focus provided by SFA certainly was evident in how teachers taught and thought about reading instruction. This reform effort school, which has improving student achievement, reflects a focused, coherent curriculum based on the SFA model. Overall, teachers were following the model faithfully, and this focus may have contributed to the improving achievement scores. Certainly, teachers were learning how to teach reading using SFA. At the same time, there was little evidence that they were learning to think “outside the box” of SFA.

The SFA program requires that teachers group and regroup students across grade levels, and teachers who had to teach not only the students in their classrooms (other language arts, content areas), but those from other classrooms, possibly from other grade levels, seemed to have been learned about vertical and horizontal reading curricula of (Shulman, 1986). Moreover, teachers worked with their own homeroom in the literacy lab and therefore became acquainted with other approaches and techniques to improve reading instruction at their own grade level (Williams, Kirst, Haertel et al., 2005).

Although strong fidelity to the core reading program may have been important in promoting a coherent program for reading instruction in the schools, the focus on SFA may have reduced opportunities for teachers to think more broadly and to become more involved in making decisions about how to meet the needs of specific learners in the classrooms, especially those who might not be achieving success with SFA. In other words, the directive nature of SFA did not lend itself to the teacher as a “reflective practitioner.”

Given that teachers practiced fidelity to the core reading program at Jacolyn Elementary School, there may not have been opportunities for these teachers to reflect on their students’ learning and then implement information from professional development that did not focus on the SFA program. Teachers who follow a core program and do not veer from its directives may not seek the need to extend students’ reading instruction beyond the core, and they may not reflect on their instructional practices (McGill-Franzen, Zmach, Solic, & Zeig, 2006). In other words, little was seen that indicated that teachers responded to individual student needs during reading instruction.

*Initially, the teachers had a more traditional view of professional development; coaching as an approach to PD was not seen as an influential source of learning.*

At first, when the teachers were asked to discuss an influential professional development session, they were unsure of what to select because of their limited formal professional development opportunities during the year of the study. The teachers did not recognize the grade level meetings as a potential form of professional development until they were provided a list of professional development opportunities that included the

dates and topics of the grade level meetings. Also, none of the teachers identified either of the reading coaches as a source of professional development. In other words, teachers at Jacolyn Elementary School seemed to think that PD was something provided to teachers in a traditional workshop or in-service mode (Anders et al. 2000; Beresik, 2000; Darling-Hammond, 1997).

*Given that perspectives of literacy leaders differed from teachers' perspectives on effective professional development, there may be inconsistencies in terms of what professional development is offered to teachers relative to their needs and interests.*

The needs of teachers must be considered when planning professional development. This case study school provided an example in which literacy leaders' perceptions about influential professional development differed from teachers' perceptions (Bean, Swan, & Morris, 2002; Bean, 2004; Hord, 2004; Lefever-Davis et al., 2003; Sparks & Loucks-Horsley, 1990). Moreover, the view of the special education teacher was consistent with the views of classroom teachers. According to Williams (2006), administrative understanding of teachers' needs is the link between providing teachers with professional development that fits their needs and increasing student achievement.

*Graduate courses, although often thought of as "traditional" in nature, were perceived as influential professional development; in this instance, these courses did reflect a more "reform" approach to PD.*

Teachers who participated in professional development outside of school or district opportunities found that these opportunities influenced their reading instruction.

The teachers who selected graduate courses as influential professional development indicated that they learned much about the process of reading, including the connections between reading and writing, how literacy fit into a school's curriculum, and how to be a more reflective practitioner. The features of the coursework described by the participating teachers reflected the characteristics of effective professional development (Desimone et al., 2002). The teachers described how specific assignments provided authentic learning experiences through expectations for implementing a newly learned concept into their reading instruction (Bean, 2004; Desimone et al., 2002; NSDC, 2001). Then, teachers continued by describing how this type of professional development provided them with supportive learning communities (Cochran-Smith & Lytle, 1999; Duffy, 2005; Firestone & Pennell, 1997; Florio-Ruane, Raphael, Highfield, & Berne, 2004; NBPTS, 2006; Shulman, 1986; Taylor, 2000) in which assignments were discussed and graduate students received feedback from peers.

*The teachers perceived the full-time reading coach as the SFA facilitator rather than a “reading coach.”*

The full-time reading coach had a dual role: Reading First reading coach and SFA facilitator. The teachers at this school perceived the full-time reading coach more as the SFA facilitator than the Reading First reading coach, since she was responsible for facilitating the SFA program at Jacolyn Elementary School. However, the full-time reading coach also assumed the role of a “reading coach” (International Reading Association, 2004). She set the agenda and facilitated each bimonthly grade level meeting and conducted walk-throughs in teachers' classrooms during reading instruction

to facilitate instruction. Although teachers at Jacolyn Elementary School indicated that specific grade level meetings were influential sources of PD, they did not specifically identify the full-time reading coach as a source of professional development.

*Past teaching experiences also had an impact their reading instruction.*

Although teachers described the ways in which professional development impacted their reading instruction, they also stated that their teaching experiences guided their classroom teaching. For example, several teachers indicated that “they just knew” what students needed for reading instruction. These teachers did not specify that they used assessment data to draw these conclusions; rather, they relied on their previous teaching experiences. Teachers subjectively used information from their past experiences to impact their reading instruction; these past experiences became problem-solving tools (Belenky, Clinchy, Goldberger, & Tarule, 1986; Rosko & Walker, 1993)

## **5.4 DISCUSSION**

*There is a tension that exists between the need to provide professional development that builds reflective practitioners capable of making key decisions about reading instruction for students in their classroom and professional development that enables teachers to implement the core program with “fidelity.”*

As stated previously, the main focus of the professional development in this case study school was to provide teachers with what they needed to implement the core

reading program appropriately. Certainly, the fact that student achievement in this primary school was improving lends support to the notion that providing professional development helps teachers to understand the program provided for them and how to implement it with fidelity. Indeed, some researchers indicate that teachers can gain a better understanding of students' sequence of growth when following a core program, and that since core programs are sequential, students are less likely to experience gaps in their reading instruction (Slavin, Madden, Karweit, Livermon, & Dolan, 1990). Providing reading instruction in an organized format (e.g., a core program) can lead to student success and less student retention; further and special education referrals may be reduced (Slavin et al., 1990).

However, simply because teachers were taught to use a core program that contained SBRR elements does not mean that they understand *why* this type of instruction is important, nor does it mean that teachers have the knowledge and skills to modify the program should it not be effective for particular students. Furthermore, although teachers may implement the program "according to the book," there may be differences in the *quality* of the reading instruction observed. For example, a teacher who reads from the scripted teachers' manual provides a different learning experience to students than a teacher who follows the scripted program and provides scaffolding for students to make connections with the text while reading. There is research that indicates that effective teachers reflect and have a deep understanding of the reading process; thus, they are able to make instructional decisions based on students and their needs (Taylor et al. 2000; Taylor et al. 2005). When teachers demonstrate strong fidelity to a scripted core program, they may not make teaching decisions based on these needs (McGill-Franzen et



al., 2006). If teachers are not making decisions based on student needs and engaging students in higher level conversations during reading instruction, then students may not develop the ability to think at a higher level. Johnston (2004) says that teachers must think about students as individual learners who demand activities and conversations that stretch their individual thinking.

Instruction from a scripted program may not allow teachers to be reflective and intentional decision-makers in the classroom, and to focus on students as individual thinkers. Pearson (2007) describes how educators must use their “deep and broad knowledge of subject matter—along with knowledge of individual children’s histories, routines, and dispositions” (p. 153) to develop a curriculum that provides instruction for all students. Also, teachers must be responsible for recognizing and responding to effective and ineffective instructional practices; therefore, they must have the flexibility to be reflective practitioners (Pearson, 2007). In other words, as stated by Pearson (2007), will scripted programs lead to reflective teacher practice becoming an “endangered species”?

The observed teachers’ instruction followed a program, rather than aligning student needs to a program. These teachers often focused more on covering a particular amount of material versus focusing on the skills that students need to become successful readers (Doubek and Cooper 2007). This type of instruction (i.e., covering material presented in a reading program) may not allow teachers the ability to make necessary instructional decisions that address individual student needs.

Professional development must provide teachers with a better understanding of the core programs they are using for the most effective implementation to occur. High

quality professional development opportunities also must prepare teachers to critically examine core programs while supporting teachers at becoming more responsive to student needs during reading instruction.

## **5.5 IMPLICATIONS**

Teachers found that professional development opportunities that facilitated a sense of a learning community were most beneficial (e.g., grade level meetings, colleagues within graduate course, or on-line study group members). Teachers had opportunities to make connections between their prior content knowledge of reading and the new information that was discussed among colleagues (Cochran-Smith & Lytle, 1999). Teachers responded positively to professional development that included collegial discussions.

Schools are responsible for providing teachers with professional development opportunities that foster teacher learning through authentic learning experiences. Therefore, professional development providers within the schools should create opportunities for teachers to be active participants in learning communities that offer experiences that have authentic application to classroom instruction. Teachers' active involvement in learning communities provides opportunities for collegial dialogue that deepens teacher knowledge across and within grade levels, thereby creating an environment for teacher change (Duffy, 2005; Firestone & Pennell, 1997; Florio-Ruane, NBPTS, 2006; NSDC, 2001; Raphael, Highfeild, and Berne, 2004; Shulman, 1986; Taylor, 2000).

It is important to acknowledge the *range of responses* of teachers to the question about which professional development session was most influential. This range of responses reminds those responsible for professional development that individual needs may not be met through one type of individual session or content focus; therefore, there must be a variety of opportunities to meet individual teachers' needs. Teachers were more active when professional development sessions with different formats and content addressed what *they needed*, thus creating teacher learning (Bean, Swan, & Morris, 2002; Bean, 2004; Hord, 2004; Lefever-Davis et al., 2003; Sparks & Loucks-Horsley, 1990).

## 5.6 LIMITATIONS

As with any case study, there were limitations to this research. The information gathered at Jacolyn Elementary School provided a snapshot of the teachers' perceptions of influential professional development during one school year. The data collected at this school provided a deeper understanding of the professional development opportunities at Jacolyn Elementary School (i.e., a reform initiative school with improving student achievement), perceptions about influential professional development, and the impact of professional development on reading instruction. However, caution should be used when trying to generalize this information to other school settings. While this study was presented as a "case study school," the participants included the principal, full-time reading coach, part-time reading coach, and seven Jacolyn Elementary School teachers who volunteered to participate in the study. Eight other teachers in the building did not

participate, and their perceptions and classroom instruction might have differed from those who agreed participated.

Classroom observations were a necessary data source, as a means of understanding how knowledge was transferred from professional development to classroom practice. Each teacher was observed only for a 45-minute period during the beginning or latter half of the 90-minute reading block. This provided an opportunity to make connections among professional development, teacher knowledge, and classroom practice. Classroom observations that occurred for the entire reading block, or observations over multiple sessions, would have provided more information about *how and what information was transferred from* professional development to classroom practices. Also, observing in the literacy lab where classroom teachers taught their homeroom students using activities beyond those of SFA, would have provided opportunities to better understand the impact of professional development on teachers' literacy instruction.

## **5.7 RECOMMENDATIONS FOR FURTHER RESEARCH**

Professional development for teachers is one key to advancing education in this country. Since research indicates that high quality teachers influence student achievement (American Education Research Association, 2005; Au, 2002; Darling-Hammond, 2000; Guskey, 2000; Joyce & Showers, 2002; Rosemary, 2005; Sanders & Rivers, 1996; Sparks & Loucks-Horsley, 1990; Taylor et al., 2005), it is important for

future research to focus on *reading professional development and its potential for developing such teachers*.

Educators must continue to strive to create a robust definition of *effective professional development*. During this process, there must be an understanding that this definition is explicit enough to provide parameters to work within but have enough flexibility for professional development to address individual teachers' needs.

Providers of professional development must examine critically whether professional development provides teachers with opportunities to deepen their knowledge and understanding in the multiple and intertwined levels of instruction (i.e., knowledge of the content of reading, the pedagogy of teaching reading, and the implications of curricular reading instruction). The following research suggestions may be helpful in achieving these goals.

1. Case study research should be done between reform effort schools (i.e., schools receiving additional federal funds to improve instruction) and non-reform effort schools (i.e., schools that are not receiving additional funding to improve instruction). Drawing comparisons between these two types of schools may provide a better understanding of what is occurring in professional development in these schools. Most importantly, this research may show the *differences* between what is occurring in the professional development sessions at these types of schools.
2. Case study research should explore further the professional development opportunities provided at a school with a scripted program versus a school that does not follow a scripted program. In order to better understand *how, how much,*

*when, why, and what* teachers transfer from professional development into their teaching, research contrasting teachers working within a script and those working without a script should be pursued. School variables, such as demographics, administrative support, and the value the school places on the importance of professional development, should be considered for this further research. These two future research suggestions are supported by Douber and Cooper (2007), who indicated that research that compares the efforts of professional development on different reading programs would provide much needed information to the field.

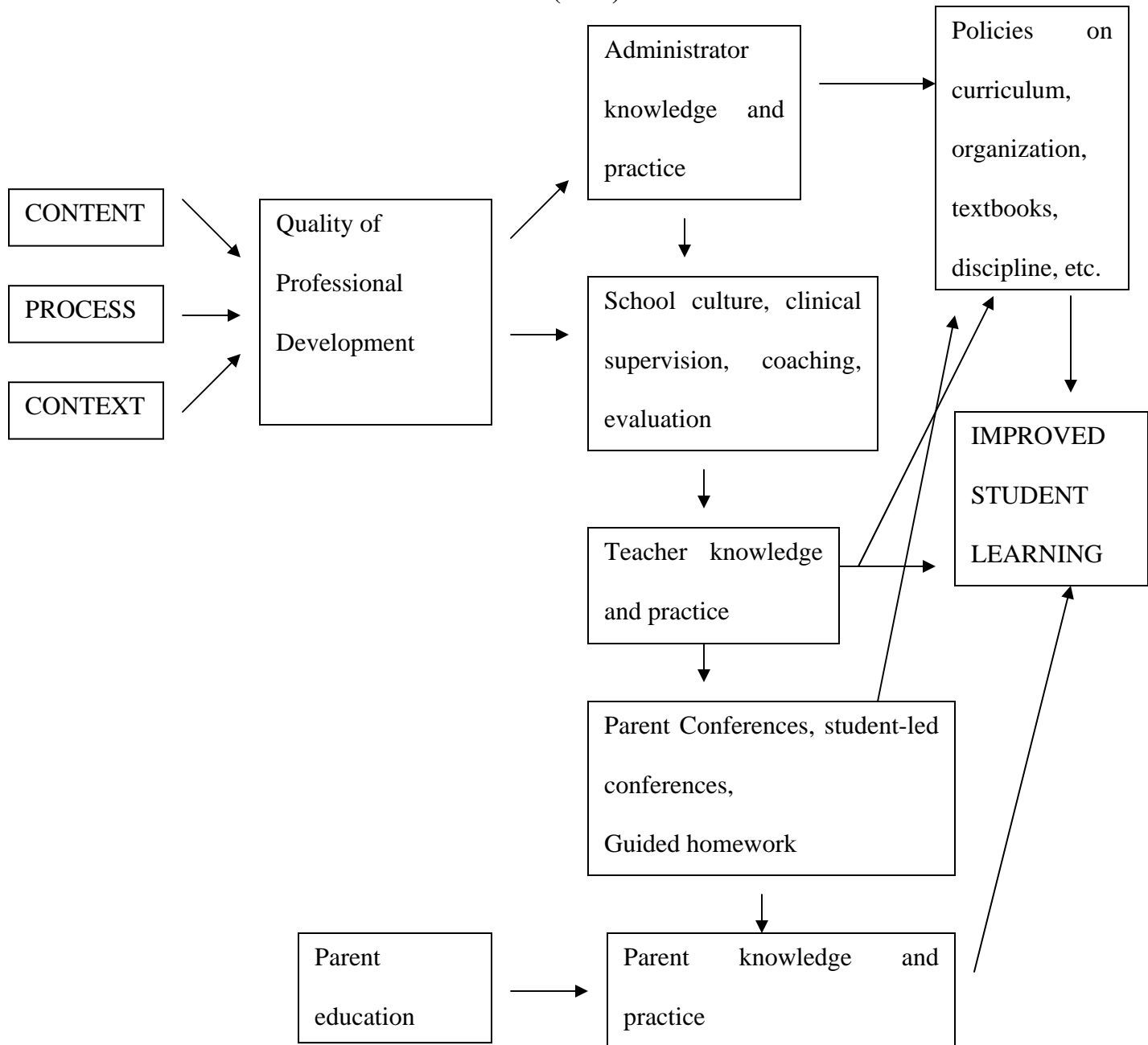
3. Although case study *schools* provide a broad picture of the impact that professional development information has on schools, the impact of professional development at another level, *individual teachers*, should be examined.

Information from individual case study teachers could be collected throughout a school year to provide more descriptive examples of *how, how much, when, why, and what* teachers incorporate from the professional development sessions into their reading instruction overtime. Data analyzed at this level would provide a clearer understanding of the impact of professional development on individual teachers and their reading instruction.

4. Professional development sessions should be monitored closely to understand better how information is transferred to reading instruction. Also, during this examination, professional development should be examined to see how the information provided fits into the core program, while creating more responsive reading teachers in the classroom.

## APPENDIX A

### GUSKEY AND SPARKS' (2000) MODEL



## **APPENDIX B**



## EMERGING EFFECTIVE CHARACTERISTICS OF PROFESSIONAL DEVELOPMENT

Study	Reform Type	Duration	Collective Participation	Active Learning	Coherence	Content Focus
Boyle et al. (2004) Year 1	X	91% conference; 54% 1-day workshop; 22% 2-day workshop; 9% > 2-day workshop	X	X	X	No Focus
Boyle et al. (2005) Year 2	X	70% 1-day workshop; 10% > 2-day workshop	X	X	X	No Focus
Kinnucan Welsch et al. (2006)	X	15 sessions throughout one academic year	X	X	X	X
Pedrotty Bryant et al. (2001)	X	3 full day inservices throughout the school year; continuous in class modeling; bi-weekly support meetings/ 1 hour; total 4 week intervention	X	X	X	X
O'Connor et al. (2005)	X	4 year commitment		X	X	X
Taylor & Pearson (2005)	X	over 8 months; study groups meet 1 hour a week/ 3x's per month;	X	X	X	X

		entire faculty 1/month				
Taylor et al. (2005)	X	over 8 months; study groups meet 1 hour a week/ 3x's per month; entire faculty 1/month; 3 observations per academic year	X	X	X	X
Taylor et al. (2000)	X	1 academic school year; teachers were observed 5 x's; weekly log of reading instruction in Feb. and April; interviewed in May	X	X	X	X
Van Keer & Verhaeghe (2005)	X	year round coaching/ 35 hours; inservice course 13 hours	X *	X* *	X	X

\* (year round coaching only)

\*\* (year round coaching only)

## **APPENDIX C**

### **PARTICIPANT LETTERS**

## C.1 TEACHER LETTER

Dear **Teacher**,

Date March 29, 2007

I am a doctoral candidate at the University of Pittsburgh working with Dr. Rita Bean, who is my advisor. I am interested in collecting data at a Reading First Elementary School where student achievement is improving. My primary interest is to obtain information about the professional development opportunities which have been available during your school's involvement with the Reading First grant.

Specifically, the purpose of my study is to determine how such professional development has influenced or changed your teaching practices. I anticipate that my findings will be helpful to schools planning professional development for their teachers. I plan to describe effective characteristics of professional development and how teachers' instructional practice has changed provided professional development opportunities.

The study consists of an on-site teacher interviews and classroom observations. The pre observation interview will take approximately 15 minutes. There will be a 45 minute observation followed by a post interview which will take approximately 45 minutes. The information collected from these sources will be kept confidential. Students will not be involved in any of the data collection procedures. The audio taped interviews will be transcribed; all audiotapes will be destroyed upon completion of the project. The field notes taken during the classroom observations will be destroyed upon completion of the project.

I would appreciate your voluntary participation in the study. If you agree to participate, please plan on possibly being involved with interviews and a classroom observation. The individuals, schools, and the district will not be able to be identified in this research. Names, schools, and the district will be kept confidential by using pseudonyms. Participants in this study may withdraw at any time without penalty. If you have any questions about this study, please feel free to call me at 814-450-0520 or by email [alm89@pitt.edu](mailto:alm89@pitt.edu) .

Thank you,

Aimee Morewood

Graduate Student Researcher

University of Pittsburgh

Rita Bean, Ph. D.

Professor

University of Pittsburgh

## C.2 COACH LETTER

Dear **Coach**,

Date March 29, 2007

I am a doctoral candidate at the University of Pittsburgh working with Dr. Rita Bean, who is my advisor. I am interested in collecting data at a Reading First Elementary School where student achievement is improving. My primary interest is to obtain information about the professional development opportunities which have been available during your school's involvement with the Reading First grant.

Specifically, the purpose of my study is to determine how such professional development has influenced or changed the teaching practices. I anticipate that my findings will be helpful to schools planning professional development for their teachers. I plan to describe effective characteristics of professional development and how teachers' instructional practice has changed provided professional development opportunities.

I would appreciate having an opportunity to conduct an interview with you. This interview will take approximately 45 minutes to complete. The information collected will be kept confidential. The audio taped interview will be transcribed; all audiotapes will be destroyed upon completion of the project.

I would appreciate your voluntary participation in the study. The individuals, schools, and the district will not be able to be identified in this research. Names, schools, and the district will be kept confidential by using pseudonyms. Participants in this study may withdraw at any time without penalty. If you have any questions about this study, please feel free to call me at

814-450-0520 or by email [alm89@pitt.edu](mailto:alm89@pitt.edu) .

Thank you,

Aimee Morewood

Graduate Student Researcher

University of Pittsburgh

Rita Bean, Ph. D.

Professor

University of Pittsburgh

### **C.3 PRINCIPAL LETTER**

Dear **Principal**,

Date March 29, 2007

I am a doctoral candidate at the University of Pittsburgh working with Dr. Rita Bean, who is my advisor. I am interested in collecting data at a Reading First Elementary School where student achievement is improving. My primary interest is to obtain information about the professional development opportunities which have been available during your school's involvement with the Reading First grant.

Specifically, the purpose of my study is to determine how such professional development has influenced or changed the teachers' instructional practices at your school. I anticipate that my findings will be helpful to schools planning professional development for their teachers. I plan to describe effective characteristics of professional development and how teachers' instruction has changed provided professional development opportunities.

I would appreciate having an opportunity to conduct an interview with you. The information collected will be kept confidential. I plan to ask the teachers to participate in a pre and post interview; also I would like to observe in at least six classrooms throughout the school. The pre observation interview will take approximately 15 minutes. I will be observing for 45 minutes per classroom and the post interview should take approximately 45 minutes to complete. Students will not be involved in any of the data collection procedures. The audio taped interviews will be transcribed; all audiotapes will be destroyed upon completion of the project.



The field notes taken during the classroom observations will be destroyed upon completion of the project.

I would appreciate your voluntary participation in the study. The individuals, schools, and the district will not be able to be identified in this research. Names, schools, and the district will be kept confidential by using pseudonyms. Participants in this study may withdraw at any time without penalty. If you have any questions about this study, please feel free to call me at

814-450-0520 or by email [alm89@pitt.edu](mailto:alm89@pitt.edu) .

Thank you,

Aimee Morewood

Graduate Student Researcher

University of Pittsburgh

Rita Bean, Ph. D.

Professor

University of Pittsburgh

## **APPENDIX D**

### **PARTICIPANT INTERVIEW QUESTIONS**

## **D.1 TEACHER PRE AND POST INTERVIEW QUESTIONS**

### Pre-Conference

1. You have agreed to let me visit your classroom to observe instruction that is related in somewhat to PD that you have received during the past semester. Tell me a little about the PD that has influenced your instruction – and a little about what I am going to see. (Have teacher discuss the specific PD). If teacher cannot identify a specific PD activity, I will share the list that has been offered in the school (attachment 2), and see if she/he can then identify one of sessions that has in some way influenced instruction.

### Post-observation conference

#### Lesson specific PD

Let's talk about this lesson.

1. What was the main focus of your lesson?
2. Tell me again, where did you learn to do this?
3. In what ways was this activity successful?
4. Did you learn things in your professional development activities that you haven't had a chance to implement in your classroom?
5. What do you usually do in your classroom that I didn't have a chance to see today?

#### School PD

1. Let's go back to the PD that prepared you for this lesson. Let's discuss the professional development activity in which you were involved that had a large impact on your teaching practices. Make sure that teacher answers the following:

Additional prompts (to get in depth information about the PD activity)

Who presented?

Reform: How was this professional development activity conducted? (i.e. study group, individual research project, etc.)

Duration: How many hours was this activity? Was this activity revisited over time or was it a single session?

Collective Participation: Who participated in this activity? (i.e. teachers in the same grade, department, school)

Active Learning: Did this activity allow for a practical experience? Were you using actual student data or receiving feedback on your teaching?

Coherence: Do you feel that this professional development activity aligned with your personal instructional goals? Did the

activity align with district, and state standards? Did the activity encourage teachers to communicate with each other even after the activity was over?

Content: Was there a specific content focus in this professional development session (i.e. fluency)?

2. This school is improving, how do you think this particular professional development has influenced your instruction?

#### General PD

1. What else do you think I can observe that has been influenced by what you have been learning in your professional development activities from this year?
2. In this discussion, I am looking for information that will address the following questions:
  - a. What did you learn at this professional development activity? (i.e. I will be looking for emphasis in the following areas: content, pedagogy, curriculum content)
    - i. How do you decide what you should incorporate from the professional development activity into your teaching? (content)
    - ii. How does this new information from the professional development activity fit into what you already know about reading? (content)
    - iii. How do you incorporate this newly learned information into your teaching? (pedagogy)
    - iv. How does this new information fit into what is currently taught at other grade levels? (curriculum content-vertical)
    - v. How does this new information fit with what is currently taught in other content areas? (curriculum content-horizontal)
    - vi. What did you learn about literacy? (content)
    - vii. What did you learn about teaching literacy? (pedagogy)

## D.2 COACH INTERVIEW QUESTIONS

1. Here is a list of the professional development activities that have been offered in your school. Which of these have you attended? Have you led any of these? Any others? (Attachment #2)
2. Please identify and describe one professional development activity that your teachers were involved in that you perceive as having a large impact on their practices.

### Additional Prompts

Who presented?

Reform: How was this professional development activity conducted? (i.e. study group, individual research project, etc.)

Duration: How many hours was this activity? Was this activity revisited over time or was it a single session?

Collective Participation: Who participated in this activity? (i.e. teachers in the same grade, department, school)

Active Learning: Did this activity allow for an authentic experience? Were you using actual student data or receiving feedback on your teaching?

Coherence: Do you feel that this professional development activity aligned with your teachers' personal instructional goals? Did the activity align with district, and state standards? Did the activity encourage teachers to communicate with each other even after the activity was over?

Content: Was there a specific content focus in this professional development session (i.e. fluency)?

3. This school is improving, how do you think this particular professional development has influenced the teachers' instruction?
4. Overall how do you think teachers' knowledge of content, pedagogy, your school district's curriculum have been influenced by the professional development that has been provided from September to March of this year?
  1. Which of these has been focused on most?
  2. Why do think this was the focus?
  3. How has this influenced teacher practice?
  4. Now you have discussed \_\_\_\_\_ (i.e. content) please also discuss \_\_\_\_\_ and \_\_\_\_\_ (i.e. pedagogy and district curriculum).
  5. What do teachers know about \_\_\_\_\_ (i.e. pedagogy)?
  6. How has this influenced teacher practice?

7. What do teachers know about \_\_\_\_\_(i.e. district curriculum)?
8. How has this influenced teacher practice?

### D.3 PRINCIPAL INTERVIEW QUESTIONS

1. Here is a list of the professional development activities that have been offered in your school. Which of these have you attended? Have you led any of these? Any others? (Attachment #2)
2. Please identify and describe one professional development activity that your teachers were involved in that you perceive as having a large impact on their practices.

#### Additional Prompts

Who presented?

Reform: How was this professional development activity conducted? (i.e. study group, individual research project, etc.)

Duration: How many hours was this activity? Was this activity revisited over time or was it a single session?

Collective Participation: Who participated in this activity? (i.e. teachers in the same grade, department, school)

Active Learning: Did this activity allow for an authentic experience? Were you using actual student data or receiving feedback on your teaching?

Coherence: Do you feel that this professional development activity aligned with your teachers' personal instructional goals? Did the activity align with district, and state standards? Did the activity encourage teachers to communicate with each other even after the activity was over?

Content: Was there a specific content focus in this professional development session (i.e. fluency)?

3. This school is improving, how do you think this particular professional development has influenced the teachers' instruction?
4. Overall how do you think teachers' knowledge of content, pedagogy, your school district's curriculum have been influenced by the professional development that has been provided from September to March of this year?
  1. Which of these has been focused on most?
  2. Why do think this was the focus?
  3. How has this influenced teacher practice?
  4. Now you have discussed \_\_\_\_\_ (i.e. content) please also discuss \_\_\_\_\_ and \_\_\_\_\_ (i.e. pedagogy and district curriculum).
  5. What do teachers know about \_\_\_\_\_ (i.e. pedagogy)?
  6. How has this influenced teacher practice?

7. What do teachers know about \_\_\_\_\_(i.e. district curriculum)?
8. How has this influenced teacher practice?



## **APPENDIX E**

### **LIST OF INFORMAL PROFESSIONAL DEVELOPMENT ACTIVITIES (SY 2006-2007)**

Common Planning – all were conducted by me (i.e. Full-time Coach); each group meets 30 minutes; done by grade level

9/7/06 PSSA results; 3<sup>rd</sup> grade coach calendar; Essential Elements of Vocabulary

Handwriting Without Tears

9/21/06 Open House (26<sup>th</sup>); Scholastic Book Fair; Newsweek article; Books from

Adult Literacy

10/5/06 Reading First District Calendar discussion

10/12/06 Grammar and punctuation – Daily Language Review books – discuss how

will be used in the classroom; Grade 2 Terra Nova schedule; DIBELS results

10/26/06	SRI testing schedule; SFA visit (Nov. 2 <sup>nd</sup> ); Pitt Visit; AR reading tests
11/2/06	Tammy Dockett-Wilson from SFA will speak
11/9/06	Workshop ideas (Nov. 15 <sup>th</sup> ); American Education Week activities/ 4 Sight Essay scoring
11/30	4 Sight Tests
12/21	State Visit – report; discuss challenges, comments
1/4/07	State Report / PSSA practice Anchor workbooks; Roots and Wings testing
1/11/07	Sticker calendar; Quarterly Assessment Sheets; grade summaries; Report cards
1/18/07	SFA groups / DIBELS scores
1/25/07	100 <sup>th</sup> Day activities; Dr. Seuss birthday activities/workshop
2/1/07	Presentation for possible adoption of new vocabulary/spelling/ phonics

## **APPENDIX F**

### **DESCRIPTION OF THE TOPICS OF EACH GRADE LEVEL MEETING**

In September of 2006 four topics were discussed at the grade level meetings. The teachers discussed the PSSA results (i.e. substantive), 3<sup>rd</sup> grade received a calendar for the PSSA Coach books previously used (i.e. logistical), books were distributed for a new vocabulary program that was implemented (i.e. logistical), and materials for the Handwriting Without Tears program were distributed (i.e. logistical). The information at these grade level meetings was 75% logistical.

Four topics were discussed at the next grade level meeting of 2006-2007; all provided logistical information. The information for the yearly open house, the scholastic book fair, a Newsweek article (i.e. given to teachers “for their information”), and a plan for distributing books provided by an adult literacy group was distributed.

The October 5, 2006 grade level meeting focused on one logistical topic, the Reading First district calendar. The calendar of events and assessment dates was given to the teachers. The calendar consisted of on-going assessment dates.

The grade level meeting that occurred on October 12, 2006 covered three topics for second grade and two topics for first and third grade teachers. The first topic discussed was daily grammar and punctuation books. Teachers were told that they would receive copies to use in their classrooms and a discussion took place about how to

incorporate this into their instruction. This topic provided both substantive and logistical information to the teachers. The second grade teachers received a schedule for the Terra Nova assessment (i.e. logistical information). Finally all teachers received their homeroom DIBELS results. According to the full-time coach, these results were distributed but not discussed; therefore it was analyzed as logistical information.

During the October 26, 2006 grade level meeting four topics were discussed; three logistical and one substantive. A calendar was distributed for the Scholastic Reading Inventory testing, the SFA visit was announced, and the Pitt visit (e.g. the External Evaluation Team) classroom visits schedule was distributed. The information from these three topics kept teachers informed on upcoming events (e.g. logistical). Substantive information was focused on the Accelerated Reading Program. The program was presented and the full-time coach and teachers discussed how to incorporate it into the school day.

The SFA consultant presented at the sixth meeting of the 2006-2007 school year. The SFA consultant reviewed the SFA program with the teachers by answering questions during the grade level meetings. Also, she visited classrooms (i.e. did walk-thoughts) and answered questions about the SFA program. This grade level meeting was coded as substantive.

During the next grade level meeting all three of the topics were coded as providing substantive information. Parent workshop ideas were discussed. These ideas were specific to reading groups and not homerooms. Next, the full-time coach and the teachers discussed ideas and activities that could be incorporated during American Education Week. These ideas were discussed for both the reading groups and the

homerooms. The final topic covered during the grade level meetings was the 4-Sight essay assessments. The essays were read individually and blindly scored using a rubric. During this meeting the teachers discussed the scores teachers assigned to particular essays and provided a justification for why they had provided that particular score. This session was coded as substantive.

The 4-Sight test results were distributed at the next grade level meeting. The results were provided for the teachers and the next assessment date was established. These assessments were on-going throughout the year. Logistical information about the 4 Sight test was provided at these grade level meetings.

Only one topic was discussed at the next grade level meeting, the state visit report. The full-time coach and teachers reviewed the state report and discussed the comments within the report. This grade level meeting also provided teachers the opportunity to discuss the challenges they faced that were reflected in the state report. This grade level meeting was coded as substantive.

Two logistical topics were discussed at the next grade level meeting. Teachers received the PSSA practice workbooks (e.g. Anchor books) and the dates when the part-time coach would be modeling for the teachers. Also, a calendar for the testing dates for the Roots and Wings assessments was distributed; these assessments were on-going throughout the year.

Again logistical information was discussed at the next grade level meeting. Mostly administrative information was distributed during this meeting. A calendar was distributed for the sticker reading program that was implemented at Jacolyn Elementary School. The quarterly assessment sheets and the grade summary sheets that teachers

must use for each student were distributed; this was on-going record keeping throughout the year. Finally all teachers received their homeroom report cards in order for grades to be recorded and sent home.

Since the academic quarter recently changed and SFA testing was completed, at the next grade level meeting teachers were provided a list of the new SFA groups. Each teacher received a new list of students for his/her SFA reading group. This topic was coded as logistical since the teachers did not have input into creating the groups. Also at this meeting teachers received their homeroom DIBELS results. These results were discussed and student needs were the focus. This grade level meeting was coded as substantive.

The following grade level meeting covered activities for the 100<sup>th</sup> Day celebration and for Dr. Seuss Day. The teachers discussed how to incorporate ideas for both of these days into the school day. Also the teachers explained their ideas so that students would not do the same activity in two rooms (e.g. the SFA room and homeroom). Since teachers were actively sharing instructional ideas these topics were analyzed and coded as substantive.

The final grade level meeting was a presentation by *Words Their Way* (Pearson Education Incorporated, 2004) consultants. This session provided teachers with information about this program's philosophy on vocabulary, spelling, and phonics instruction. Teachers were provided useful information about classroom instruction therefore it was coded as substantive.

## APPENDIX G

### SUMMARIES OF TEACHER OBSERVATIONS

#### Teacher 1

Teacher 1, a special education teacher, grades 1 through 3, taught a class of 11 readers at the 2.2 instruction level. Because of SFA's policy that all available teachers teach reading at a common time to provide for differentiated instruction, this teacher taught reading to a homogeneous group of students that were all at the Wings 2.2 SFA level (i.e. none of these students in this reading group were special education students).

Teacher 1 began by introducing vocabulary words; specifically she identified the word and then provided a definition for it. She provided a simple definition that students could understand, e.g., "The word *imitated* means to copy something." (DI: SFA, NRP). Students were then told to imitate her. She clapped her hands and students then did the same. Later in the lesson, the teacher reviewed the vocabulary words and definitions (e.g., "Does anyone remember what *imitate* means?") (DI: SFA, NRP). This teacher provided a simple definition and connected it to students' prior knowledge (PK: NRP).

The teacher then introduced the weekly story (*Song and Dance Man*, Ackerman, 1992), showing the text to the students. Students, who did not have copies of the text, made predictions about the story and listened as the teacher read it and clarified student predictions (PK: NRP). As the teacher modeled fluent reading (TM: SFA, NRP) she

asked questions about the text; these were predominantly explicit questions (e.g. “What did Grandfather like to do?” “He liked to sing and dance.”) (AQ: SFA, NRP). The teacher also summarized the text periodically while she read (MC: NRP). Students were also asked to turn to their partner to discuss their responses before sharing with the entire class. (CL: SFA, NRP). While reading the story the teacher exclusively used the SFA manual and questions seemed to come directly from the manual.

Then the teacher introduced a character web for this story in which students were asked to identify two characteristics about grandpa. This particular story web was not part of the SFA program (although the SFA program did incorporate story maps) but was a technique the teacher used to engage students with the text (SM: SFA, NRP).

## **Teacher 2**

This third grade homeroom teacher taught a class of 14 students, reading at the second grade reading level (i.e. SFA level was Wings 2.1). He was observed modeling oral reading (TM: SFA, NRP) to the students from the SFA text (i.e. *Curious George*, Rey, 1973). Students were able to follow along with individual copies while the teacher read to them. As he read, he asked students to answer questions contained in the SFA manual (AQ: SFA, NRP). Examples of his questions include: “How did George feel?” and “What kind of trip was it?” Students were in groups of 4 (e.g. pods) and they were asked to turn to their partners, think about an answer, and then respond to the whole group (CL: SFA, NRP). The teacher asked students to work in a packet and generate their own questions about the story; again the teacher prompted the students to share their answers with the other members in their pod (MC & CL: SFA, NRP; SGQ: NRP).



The teacher then had the students review vocabulary by asking them to answer multiple choice questions in their reading packets (DI: SFA, NRP). In the packet, the vocabulary assignment was followed with a writing prompt (i.e. “What do you do before you go to bed?”). This prompt provided the students with an opportunity to make a self-to-text connection because in the story the main character described what he did before he went to bed. The teacher directed students to write two sentences addressing this topic (GR3-6: SFA). The students then turned to their pod partners and read their responses (GR3-6: SFA).

### **Teacher 3**

This teacher was a third grade homeroom teacher and the reading level she taught was also at the third grade reading level (e.g. Wings 3.1). Eleven students were observed in this reading group. One of the students in this reading group had an individual education plan (IEP) and attended the emotional support classroom at Jacolyn Elementary School. The text the students read during the observation was *Mufaro’s Beautiful Daughters* (Steptoe & Kohen, 1997).

First the students listened as the teacher modeled fluent reading (TM: SFA, NRP). Once the teacher finished reading the book the students worked through their reading packets that included comprehension questions (AQ: SFA, NRP). The questions in the reading packet included, “How are the children different?” and “Why does she feel sad?”. The students worked through these questions independently and then turned to their partner within the pod to discuss their answers (CL: SFA, NRP). The teacher then reviewed the multiple choice answers with the whole group.

Second, the teacher prompted the students to return to their reading packets and to answer the vocabulary questions; this section of the reading packet used the cloze procedure (DI: SFA, NRP).

Finally, writing was observed in the lesson. The teacher provided the students with a prompt (GR3-6: SFA). The 4-Square graphic organizer (GR3-6: SFA) was provided for the students and the teacher reviewed how to use this template to organize one's thoughts. The students were encouraged to help other members of their pods (GR3-6: SFA; CL: SFA, NRP).

#### **Teacher 4**

This teacher was not a homeroom teacher; she taught SFA reading in the morning and monitored the literacy lab in the afternoon. She taught the highest SFA reading level at Jacolyn Elementary School; Wings 4.1 (e.g. a fourth grade level). There were 17 students in her SFA reading class; one that had a physical disability that forced her to use a motorized wheelchair and adapted writing utensils (e.g. pencils and lines on the writing paper were enlarged). The text that this SFA group used during the observation was *Mummies and Pyramids: A nonfiction companion to mummies in the morning* (Osborne & Pope Osborne, 2001).

Teacher 4 started her lesson by chorally reading the vocabulary words with her students (DI: SFA, NRP). Once the vocabulary words were read the teacher asked the students to orally provide the definitions for each word (DI: SFA, NRP). The students raised their hands and orally responded as the teacher called on the student one-by-one for the definitions.

The main focus of the next part of the lesson was main ideas and details. The teacher provided students with a graphic organizer (e.g. one within the SFA program) to use while the students read the story (SM & SE: SFA, NRP). The students filled in the main idea of the passage and supporting details while reading the story. Teacher 4 did provide some background information before reading the passage to the students. She provided information about the city of Pompei (e.g. the city in the story) and related this to previously read information about other cities (PK: NRP). As the teacher read the passage aloud she asked the students questions that came from the SFA manual; the students had individual copies of the text (AQ & TM: SFA, NRP). The comprehension questions that this teacher asked came from the SFA manual. Examples of the questions were, “What did you learn about another type of mummy?” and “What was the passage about?” Students were prompted to find and discuss these answers with their pod partner (CL: SFA, NRP).

Towards the end of the observation the teacher reviewed an additional graphic organizer (e.g. one that was a part of the SFA program) that was on the front board (SM: SFA, NRP). This part of the lesson focused on how to read expository text and use these graphic maps to organize your thoughts while reading. This web included expository information about mummies. The teacher reviewed what was on the web and reminded students to keep this information in mind while reading the new passage.

## **Teacher 5**

This teacher had a second grade homeroom and taught a second grade SFA level (e.g. Wings 2.1). There were 14 students in this reading group, none of whom had an

Individualized Education Plan (IEP). The story *Frog and Toad are Friends* (Lobel 1979) from the SFA program was being used during this lesson.

This teacher began by reviewing the multiple choice comprehension questions (AQ: SFA, NRP) that the students had independently completed in their reading packets. For example, the teacher would say, “Who knows the answer to number one?”. The students would raise their hands and provide the letter that corresponded to the correct answer (i.e. the student would say “A”). The teacher would then write the letter on the board next to the number one. The teacher prompted the students to check their work with the answers on the board.

Once the comprehension questions were reviewed the teacher provided a writing prompt for the students, “Let’s go over the writing prompt. What happened to Frog and Toad?” (GR3-6: SFA). The teacher stated that the students were to write two sentences to address this prompt. The students were told to share their written responses with the pod partners (GR2 & CL: SFA).

The teacher also reviewed vocabulary by providing answers for three multiple choice questions in the student packets (DI: SFA, NRP). This was the end of the SFA lesson, however, Teacher 5 then modeled fluent reading by reading a non-SFA book to her class about Passover (i.e. one of the students in her class brought this book in to share) (TM: SFA, NRP). This was not an interactive read aloud but it did provide students with additional exposure to expository text and fluent reading.

## **Teacher 6**

Teacher 6 was a third grade homeroom teacher; however her SFA reading group of 15 students was at the second grade level. Most of this teacher's lesson was a teacher read-aloud, *Charlie and the Chocolate Factory* (Dahl, 2002). This book was not part of the SFA program.

At the beginning of this lesson, three students give presentations to the class about the books they were reading independently (CL: SFA, NRP). Once these book talks concluded, the students moved to a carpeted area in the room and listened to the teacher read aloud for the remainder of the observation (TM: SFA, NRP). Before the teacher began her read aloud, she asked the students to retell the story from the previous day then she summarized the students' points (MC & SE: SFA, NRP). This teacher asked questions while she read (AQ: SFA, NRP). Examples of the comprehension questions asked during the read aloud were, "What do you know about Umpa-Lumpas?" and "Why shouldn't you like the boat?" The teacher used a think aloud technique to make connections between the text and the students, such as "Maybe on Easter Sunday you will feel the same way as Charlie with all of that chocolate!" (PK: NRP).

## **Teacher 7**

This first grade homeroom teacher taught a third grade SFA reading group (e.g. Wings 3.1) of 18 students. This was the first opportunity for the students to be exposed to the SFA book *Through the Medicine Cabinet: Zack Files Series* (Greenburg & Davis, 1996). The teacher began the lesson by asking the students to look at the cover of the book (i.e.

the students each had a copy of the book) and to make a prediction (PK: NRP). The students each wrote a prediction for the story and the teacher walked around the room monitoring students' work and pointing out good strategies students were using to make their predictions (MC: SFA, NRP). For example, one student used the picture on the front cover but also began reading the information on the back of the book. The teacher shared this student's techniques with the class and explicitly stated why this technique was useful when making predictions.

Once the students were finished writing their predictions, the teacher modeled fluent reading as she began to read the story with the students (TM: SFA, NRP). She asked the students questions and summarized the text as she read from the story (MC: SFA, NRP). The teacher also frequently prompted students to turn to their partners in the pod to answer the questions she was asking (AQ & CL: SFA, NRP). The questions the teacher used consisted of mostly explicit questions, while she was not observed using implicit questions which would require her students to think at a higher level. Examples of the types of questions this teacher asked while reading were, when the word "sofa" appeared in text the teacher asked "What's a sofa?". She also asked the students, "What do you think just happened?", "Where are they?", "What did he get for his birthday?", and "Oh, his feelings have changed. What changed his mind?"

When the teacher read a weekly vocabulary word in the text, she prompted the students to write the word and page number of the word in their notebooks so that they could reference this page during the week (IDI: SFA).

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